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Part One



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Part Two - A very civil Boston: Mike Robson turns his non-belligerent talents onto the Douglas A-20 Boston



Corsair Mk IVs of No 1846 Sqn, flying over HMS Colossus in August 1945 (via Ian Gazeley)

VJ-Day — the end of 'the second great unpleasantness'

■ THIS PARTICULAR ISSUE MARKS THE 60th Anniversary of the official end of World War Two, with the unconditional surrender of Japan on 15 August 1945. The War in the Pacific, as it is generally referred to, started at the end of 1941, on 7 December, with the Imperial Japanese Navy's pre-emptive strike on the US Navy's bases and installations at Pearl Harbor and simultaneous attacks on British and Dutch interests in the Far East, some two years after the War in Europe had erupted in September 1939.

More than anything, Pearl Harbor was responsible for bringing the United States of America into the conflict, which, following Germany and Italy's immediate declaration of war against the super power, as part of the tripartite Axis, effectively turned it in to a truly global war.

Thankfully, in mid-1942, with America's presence in the Northern European, Middle Eastern and Far Eastern Theatres of War beginning to take effect, and the might of Soviet Russia containing the war on the Eastern Front, the tide started to turn, and by mid-1943, the ultimate outcome was essentially assured, although it took another two long years to finally achieve.

To some extent, back here in the UK, the War in the Pacific was often regarded as the 'Forgotten War' - which, aeronautically speaking, often manifested itself in the age and ability of the aircraft types expected to stem the Japanese advance - but this is perhaps not too surprising, at least as far as the British civilian population was concerned, who at the time, were having more than enough 'trials and tribulations' to contend with a little nearer home!

However, following a series of demoralising defeats, such as the disastrous fall of Singapore, the loss of Burma and the Dutch East Indies, Australia stood firm against the Japanese Empire's aspirations to invade the continent and then, the British and Commonwealth forces finally stopped retreating, took stock of the situation and began to take the fight back to the enemy.

As far as the Royal Navy was concerned, this initially took the form of the British East Indies Fleet, albeit effectively restricted to the Indian Ocean, and then the British Pacific Fleet, of which the operations and aircraft types operated

by the Fleet Air Arm, provides the bulk of our coverage of the VJ-Day Anniversary commemorations in this issue.

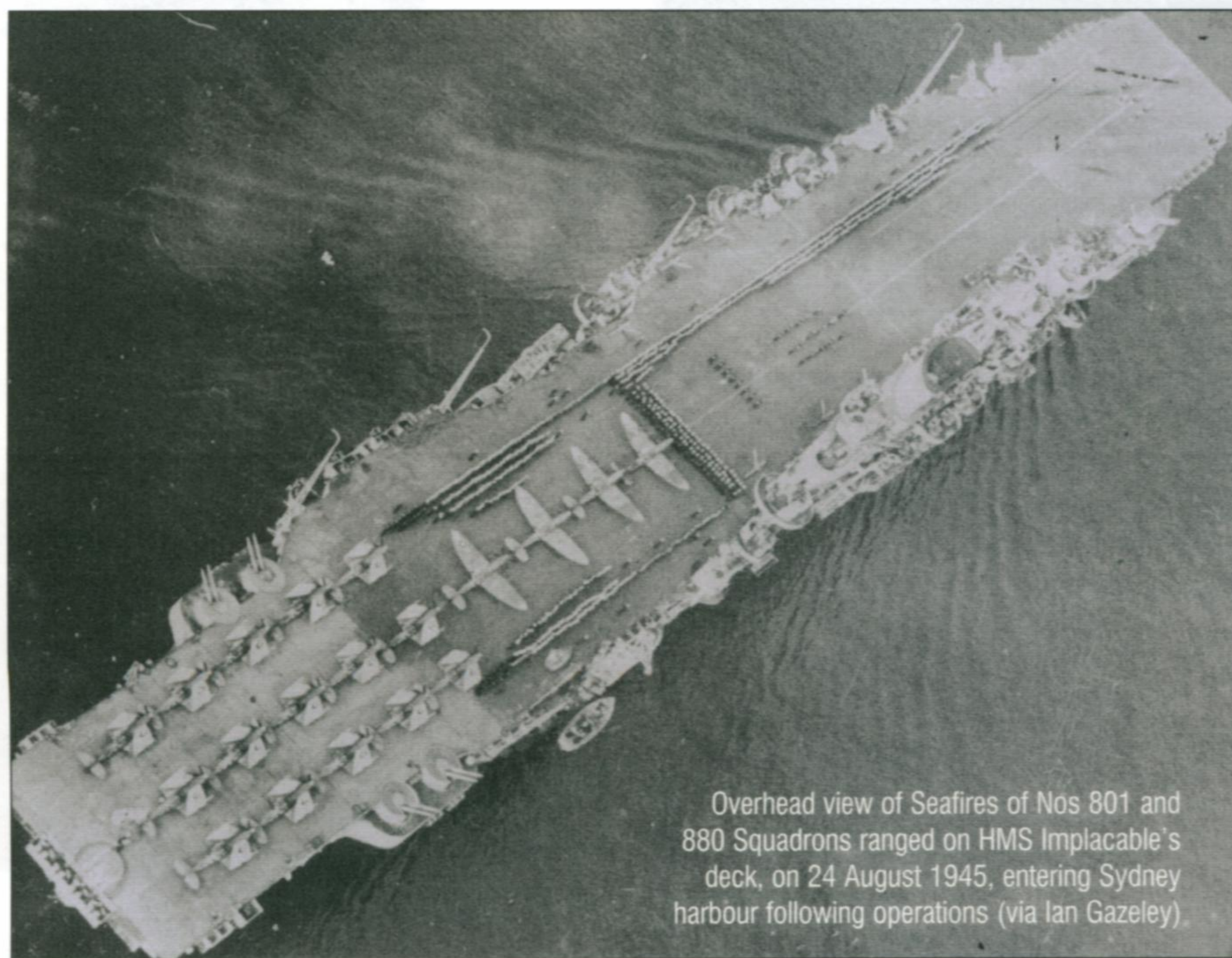
Initially, an unrequested and unwanted 'annoyance' in the minds of some US Navy commanders in the area, the British Pacific Fleet proved itself to be a relatively small but none the less very effective fighting force and an undoubted asset to the Allied cause, especially with regard to its armoured flight deck aircraft carriers. Equipped with state-of-the-art American designs, such as the Hellcat, Corsair and Avenger, together with 'home-grown' products

such as the Seafire and Firefly, the BPF 'flew the British and Commonwealth flag' in the island-hopping campaigns of 1944 and 1945, and were preparing to cover the assault on the Japanese mainland islands, when 'Little Boy' and 'Fat Man' were dropped on Hiroshima and Nagasaki.

So, does the 60th Anniversary of the official end of World War Two finally mean the end of coverage of World War Two subjects in 'MAM'...? Well, *what do YOU think...!?!*

Neil Robinson

Editor, 'Model Aircraft Monthly'



Overhead view of Seafires of Nos 801 and 880 Squadrons ranged on HMS Implacable's deck, on 24 August 1945, entering Sydney harbour following operations (via Ian Gazeley)

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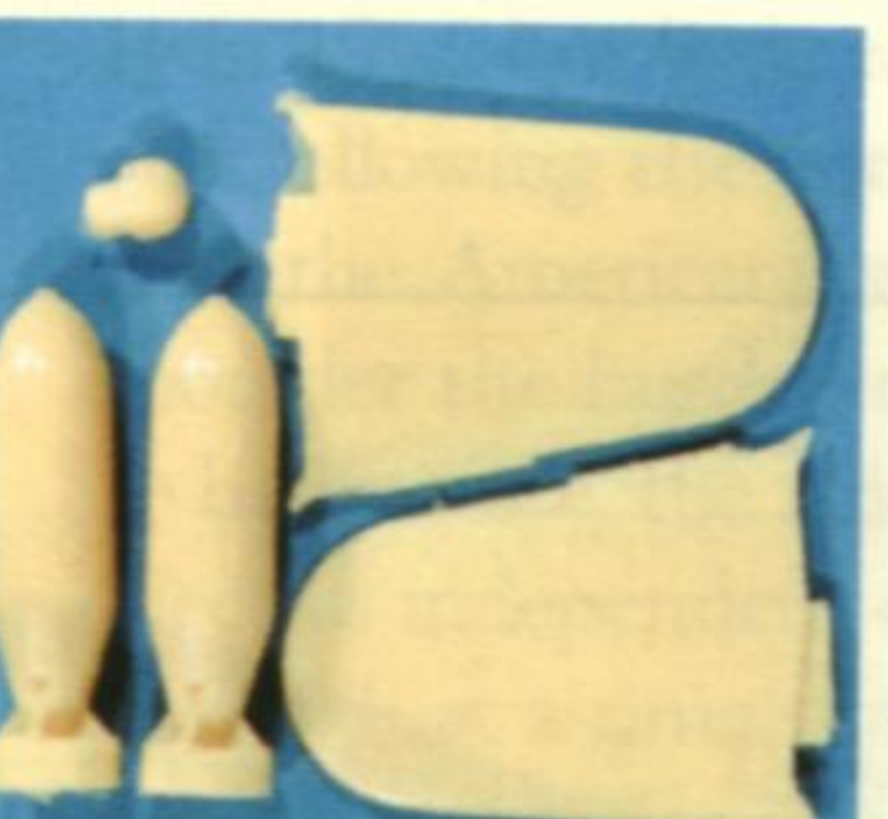
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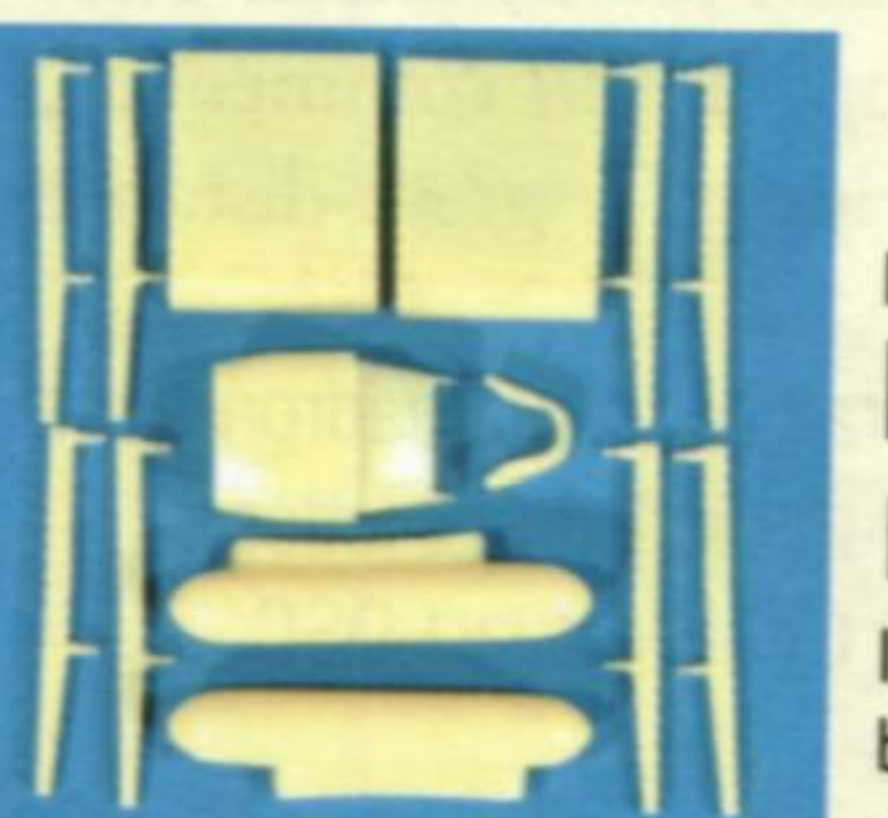
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Jabo Set 4: Fw 190A-5

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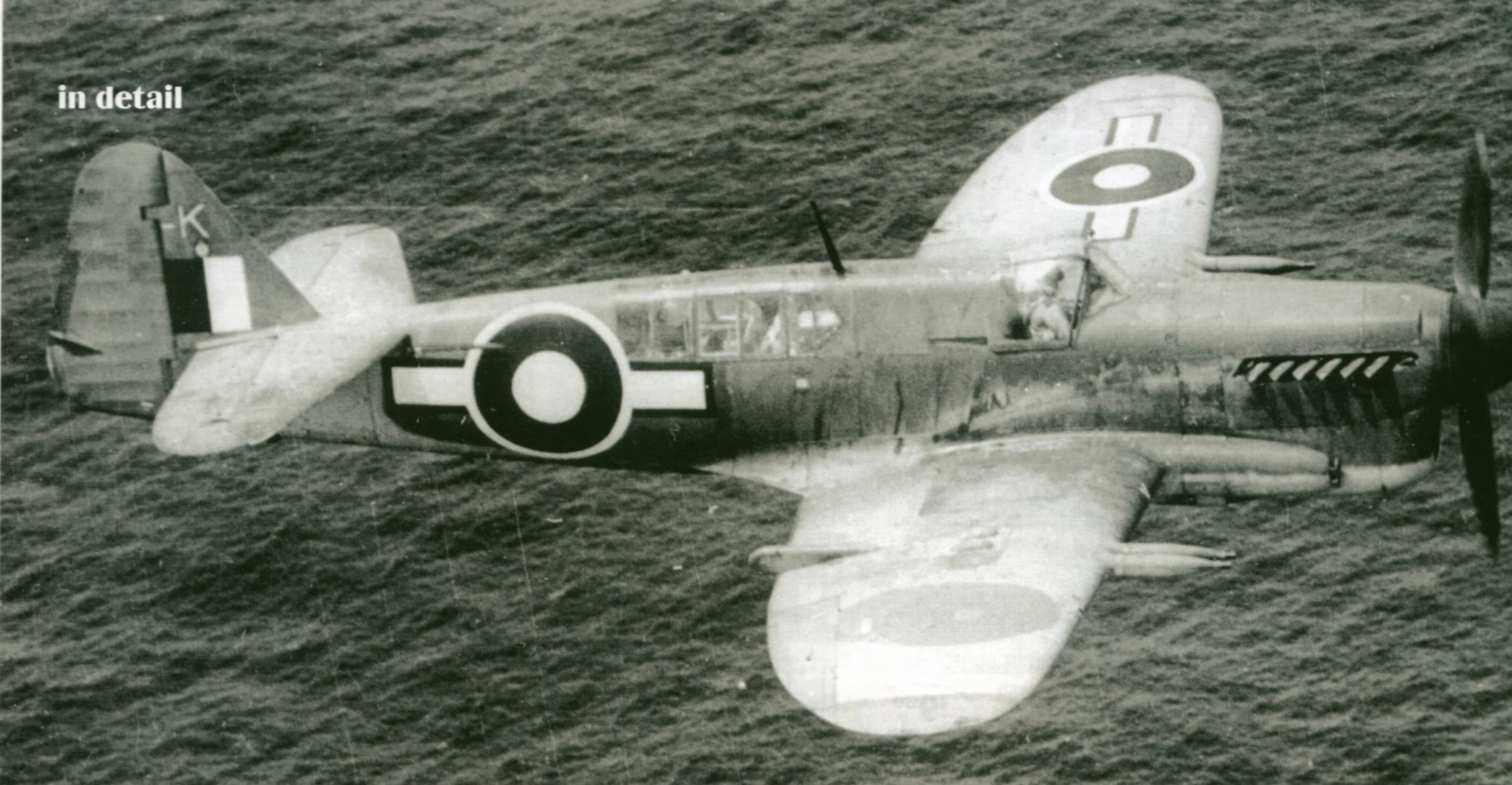
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At the Going Down of the Sun...

The British Pacific Fleet November 1944 – September 1945

To commemorate VJ-Day and the end of World War Two, Paul Lucas describes the creation and operations of the British Pacific Fleet

■ IN THE YEARS BEFORE THE SECOND WORLD WAR, British strategy in the Far East revolved around the idea that, in time of crisis, Britain would be able to send a powerful fleet to the Pacific in order to deter an aggressor which would operate from a major fleet base at Singapore. However, when the crisis in the Far East actually came, in late 1941, the Royal Navy was already fully committed in both the Atlantic and Mediterranean, and as a consequence was unable to send to the Far East the powerful fleet originally envisaged by the pre-war planners.

Such ships as were available were insufficient to have any effect as a deterrent, and following the loss of *HMS Prince of Wales* and *HMS Repulse* in December 1941, followed by the fleet base at Singapore in February 1942, the Royal Navy was effectively restricted to the Indian Ocean. Whilst a few individual ships did operate alongside the US Navy in the Pacific, the Eastern Fleet as a whole was run down as the Indian Ocean became something of a backwater compared to the Atlantic, Mediterranean and Russian convoy routes.



A British Fleet for service in the Pacific Theatre

With the setting up of South East Asia Command (SEAC) in November 1943 and the improving military situation in the Mediterranean Theatre, the Eastern Fleet began to be rebuilt. Once operations commenced, the problem of logistical support for a fleet operating at a great distance

TOP Firefly Mk I, possibly DT934 or DT941, coded 4K of No 1770 Sqn, HMS Indefatigable. Note, that at the time this photo was taken, most aircraft in this squadron were code 4x, with the squadron code forward of the roundel and the individual aircraft identification letter on the fin above the flash. In this case only the individual letter 'K' was carried on the fin (via Neil Robinson) **ABOVE** Avenger JZ594, W1•A of No 857 Squadron, HMS Indomitable, piloted by the squadron C/O, Lt Cdr W Stuart DSC, photographed about to attack the Belawan Oil Refinery in Sumatra, 20 December 1944 (via Neil Robinson)

OPPOSITE TOP Avenger Mk II, coded K1•B of No 756 Squadron, aboard HMS Victorious, photographed during Deck Landing Training in late 1944 (via Ian Gazeley)

MID LEFT Nos 1834 and 1836 Squadron Corsairs aboard HMS Victorious. Aircraft on left is coded T8F of No 1836 Squadron. Note that this squadron carried the numeral '8' and the individual aircraft letter vertically on gear covers. Those in the centre are from No 1834 Squadron - note that the squadron identification code number '7' carried on port gear cover with the aircraft letter to starboard (via Ian Gazeley) **MID RIGHT** Corsair Mk II, possibly JT361 of No 1834 Squadron, piloted by Lt Cdr Charlton making a spectacular landing aboard HMS Victorious in late 1944, Charlton failed to release the drop tank during an emergency landing, which broke off and caught fire damaging the arrestor hook. The aircraft was caught by first barrier and was repaired. It was returned to service before being written off on 1 January 1945 in another landing accident. Note the code '7J' on gear covers (via Ian Gazeley) **BOTTOM** Avenger FN817, Q4U of No 854 Sqn, HMS Illustrious, which caught the wire and swung over the side. Note the code letter 'U' in black on the engine cowl (via Ian Gazeley)



from its home base quickly became evident. When the US Navy faced the same dilemma during 1942, it got to grips with the problem by using the large industrial base of the United States to build up an extensive Fleet Train and developed mobile advanced bases which could support and sustain the fleet across the vast distances involved in the Pacific Campaign.

The matter of fleet support ships had been considered by the Admiralty in 1936 but little was done about the matter before the outbreak of war, and following the outbreak of war in the Far East, the Admiralty assumed that the Americans would at least be of some assistance, if they did not shoulder the burden entirely. In September 1943 when this did not prove to be the case, the Admiralty calculated that to make the projected Eastern Fleet as independent of its shore bases as the American fleet was, for up to a month at a time, they would need to provide a total of seventy-four ships of nineteen different types, ranging from depot ships to tugs and distilling ships.

In December 1943 the Allied Combined Chiefs of Staff agreed to a provisional deployment of British naval power in the Pacific, and negotiations began with the Americans over the ships and facilities required. The proposal ran into trouble almost straight away from Washington in general,



and Admiral Ernest King in particular, who opposed the idea of a British Pacific Fleet from the start. In his autobiography published in 1953, King refuted the accusation that his opposition was due to any Anglophobic tendencies on his part, asserting instead that his opposition to the idea of a British Pacific Fleet was due to the lack of available logistical support, and the Fleet Air Arm's inexperience in large scale carrier operations.

Eventually, King grudgingly agreed that the Royal Navy could make use of some US assets, but he made it quite clear that the Royal Navy would have to provide its own supply ships and transport its own stores. On hearing this, the Admiralty revised its earlier estimates for the Eastern Fleet and produced a new set of figures. This time the sum came to one hundred and thirty-seven ships with a combined tonnage of one and a half million tons, a figure way beyond the ability of British shipyards to produce as they were already working to full capacity. In the event, the Admiralty were offered just eighteen vessels, plus another five on loan from the Americans, with the

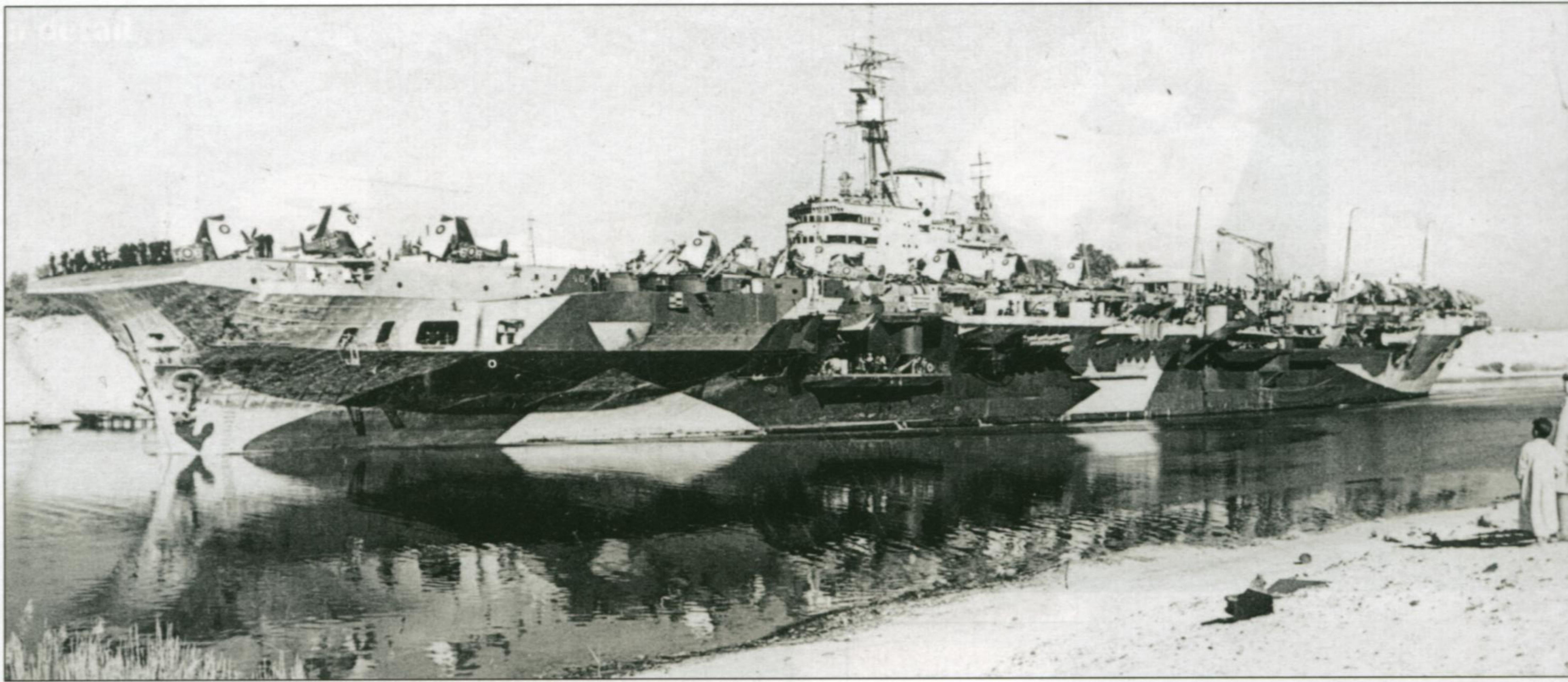


result that the fighting fleet was tailored to the size and capability of the Fleet Train instead of the other way round. Even then, subsequent events were to prove the inadequacy of the logistical support available, and that was with much 'unofficial' help from American commanders on the spot acting without Admiral King's knowledge.

The work of laying the foundations of a fleet logistic support organisation began in Australia during April 1944. By September, whilst at the Octagon Conference in Quebec, Winston Churchill, who believed it essential that the nations in Asia should see Britain undertaking an active role in the final offensive against Japan, felt able to formally offer the services of a British Fleet for service in the Pacific Theatre to President Roosevelt.

Once the President had accepted Churchill's offer, the final plans were made in October and on 22 November 1944, the Eastern Fleet was split into two elements, the East Indies Fleet and the British Pacific Fleet.

The British Pacific Fleet, (BPF), was placed under the command of Admiral Sir Bruce Fraser who decided to exercise command of the fleet from a shore based headquarters in Sydney. Command of the BPF at sea fell to Vice Admiral Sir Bernard Rawlings, whilst the post of Flag Officer, 1st Aircraft Carrier Squadron was filled by Rear Admiral Sir Philip Vian.



On 4 December, Admiral Fraser left Ceylon to meet Admiral Nimitz at Pearl Harbour. The intention was to make sure that the BPF would be placed under Nimitz's command in the all-important Central Pacific Theatre, and not be hived-off to General MacArthur's South West Pacific Area. In this aim Fraser was successful, and by the time he left Pearl Harbour on 24 December, he had signed an agreement with Nimitz, known as N/F 1, or the 'Pearl Harbour Agreement'. In this document Fraser agreed to effectively place the BPF under American orders and adopt American operational procedures. In return Nimitz was able to promise very little due to the restraints imposed upon him by Washington and Admiral King, but the BPF would be allowed to use the anchorage and base facilities at Manus in the Admiralty Islands when it finally moved into the Pacific.

Aircraft Carriers

The new Fleet's main striking power lay in its aircraft carriers, *HMS Illustrious*, *Victorious*, and *Indomitable* all of the Illustrious Class. These vessels were reinforced on 10 December 1944, by *HMS Indefatigable*, of the Implacable Class, and together they were collectively designated the 1st Aircraft Carrier Squadron. The ships were all armoured Fleet Carriers, the best the Royal Navy possessed, designed in the mid to late 1930s for use in European waters where they would spend much of their time operating in range of land based bombers. For this reason their flight decks were made of three and a half inch thick armour plate, a design feature which was to be of critical importance to the BPF.

Aircraft

The aircraft with which they were equipped by this stage of the war were for the most part of American origin, a situation which was the result of shortcomings in the development of British naval aircraft. Having been deprived of its own air arm in 1918, control over the procurement of naval aircraft had only been returned to the Royal Navy in 1938, leaving insufficient time to create a modern naval air arm before the outbreak of war.

Under the pressures of war, the situation did not improve appreciably and to fill the gap the Royal Navy turned to the United States. Under Lend Lease, the United States supplied the Royal Navy with Chance Vought F4U-1 Corsair Mk Is, F4U-1A Corsair Mk IIs and FG-1 Corsair Mk IVs, and Grumman F6F-3 Hellcat Mk I and F6F-5 Mk II fighters, along with Grumman TBF-1/TBM-1 Avenger Mk I strike aircraft, and it was these types that made up the bulk of the new fleet's aircraft inventory. The British aircraft industry was not left out entirely however, as the latest version of the Supermarine Seafire, the Mk III and the brand new Fairy Firefly Mk I were also embarked in the front line squadrons whilst a few Walrus amphibians were also available for Air Sea Rescue duties, the two onboard HMS Illustrious reportedly being named 'Darby' and 'Joan'!

BPF Operations

From an operational point of view, the wartime career of the BPF can be split into three distinct phases which were interspersed by pauses for rest, replenishment and training. The first phase consisted of a series of set piece strikes on strategic oil targets in Sumatra code named 'Outflank', which at the time were the largest ever carried out by British naval aircraft. The second phase consisted of operations carried out in support of the American landings on Okinawa, under the codename 'Operation Iceberg'. The third phase consisted of the BPF's integration as Task Force 37 within the US Third Fleet for air strikes against the Japanese mainland.



TOP Seafires aboard HMS Indefatigable, en-route to the East, passes through the Suez Canal, in December 1944 (IWM) **MIDDLE** Stern view of HMS Formidable; Note the outlined roundels and white 'SEAC' bands on the wings (via Ian Gazeley) **BOTTOM** Seafire III of No 807 Sqn, HMS Hunter coded D5•J (via Neil Robinson) **OPPOSITE TOP** A No 898 Squadron Hellcat, taking off from HMS Pursuer, early 1945, possibly coded B9•J (via Ian Gazeley) **MID LEFT** Firefly Mk I of No 1770 Squadron aboard HMS Indefatigable. Note that this Firefly only appears to carry the squadron number on the fuselage but not the individual aircraft letter on the fin (Crown copyright) **MID RIGHT** Seafire III of No 807 Sqn, HMS Hunter, coded D5•V (via Neil Robinson) **BOTTOM** Hellcat Mk II, JX696, possibly B9•A, (individual aircraft letter just shows behind the wingtip), of No 898 Squadron, on HMS Pursuer's lift in early 1945 (via Ian Gazeley)

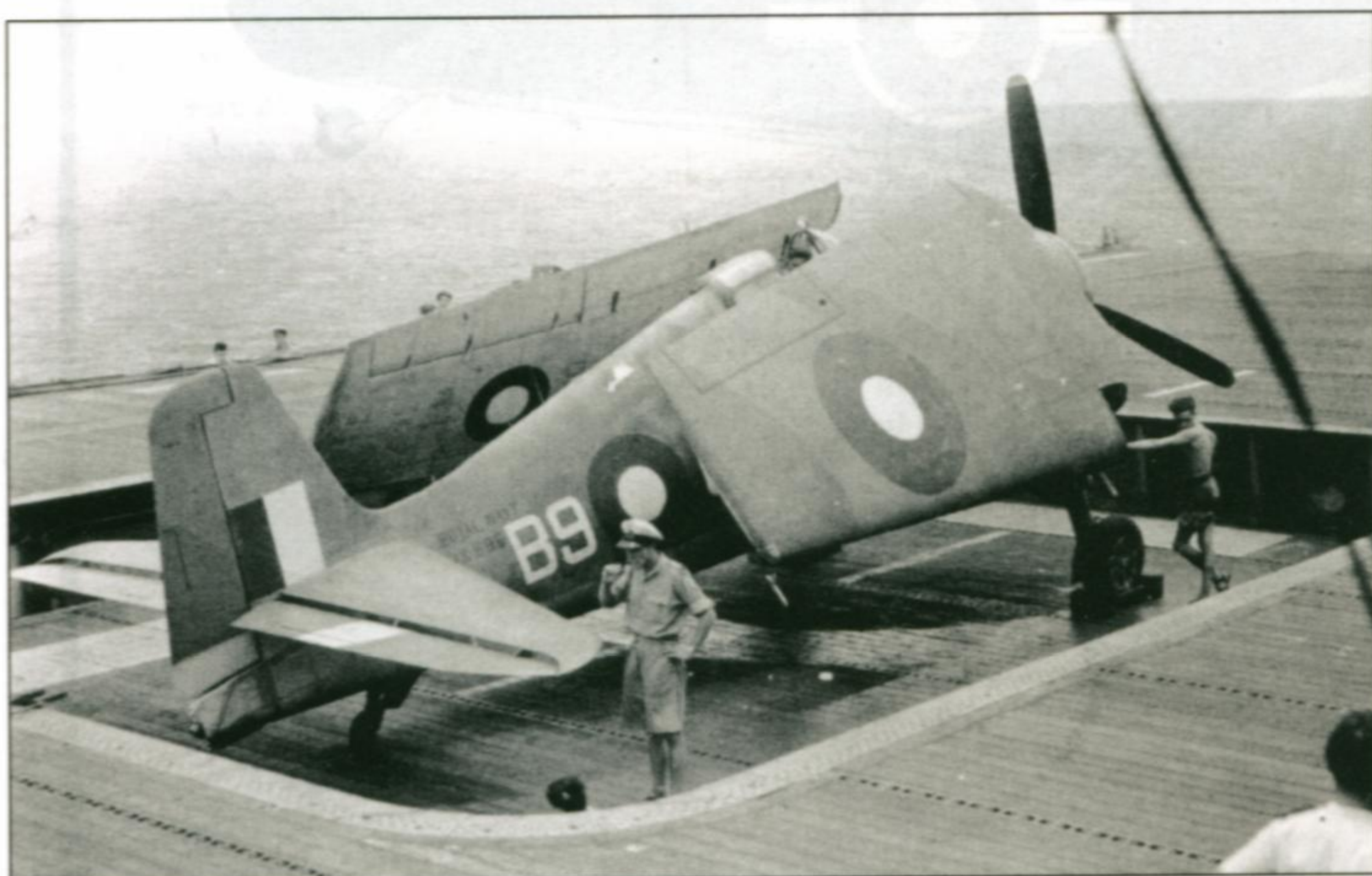


BPF operations phase one – 'Outflank'

'Operation Robson'

On 17 December 1944, the aircraft carriers *HMS Illustrious* and *Indomitable*; the cruisers *HMS Newcastle*, *Black Prince* and *Argonaut* and the destroyers *HMS Kempenfelt*, *Wessex*, *Whirlwind*, *Wakeful* and *Wrangler* sailed from Trincomalee under the designation 'Force 67' with the intention of carrying out an air strike on the oil refinery at Pangkalan Brandon in Sumatra.

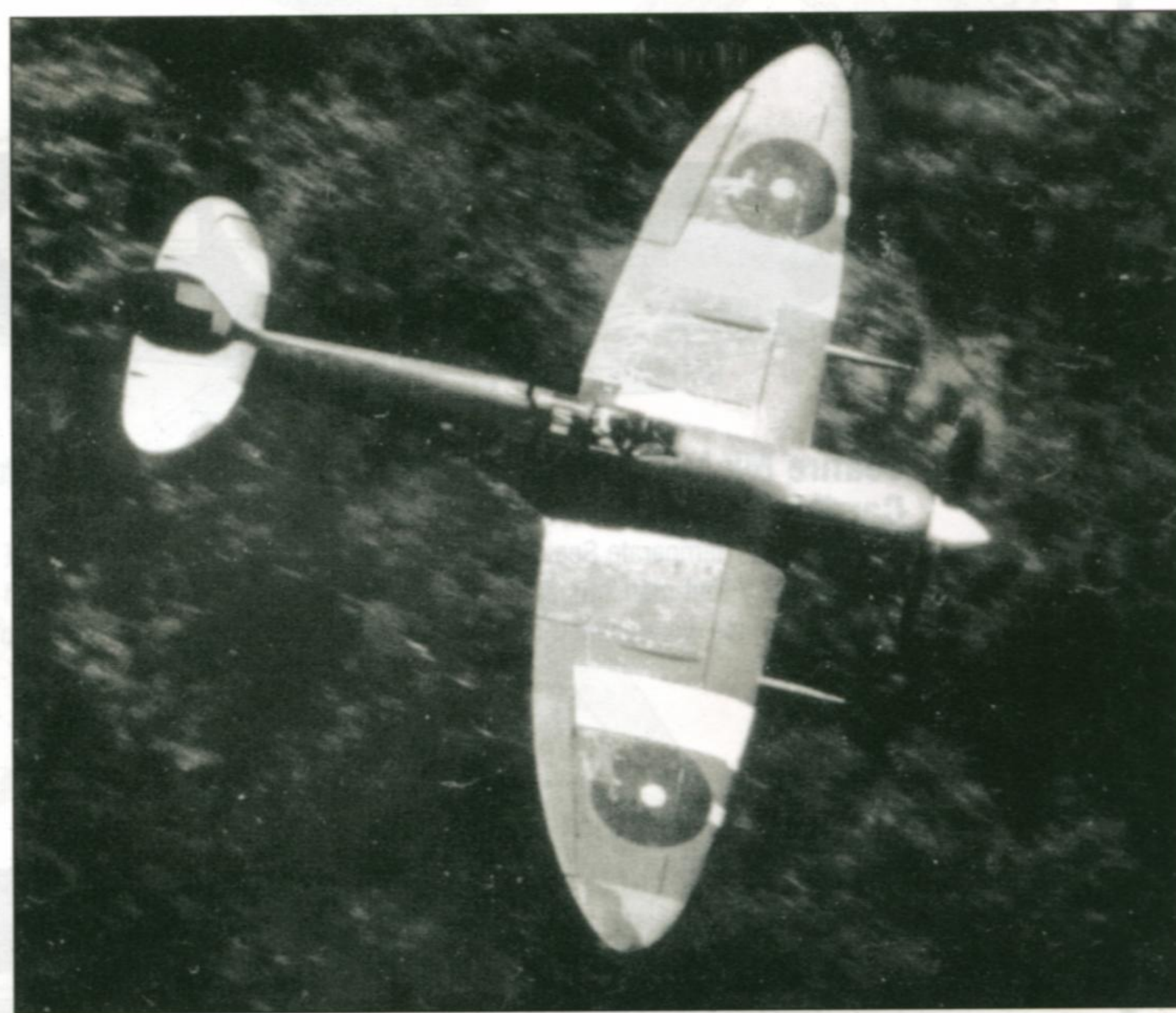
Having refuelled at sea, Force 67 arrived off Sumatra in the early hours of 20 December. However, bad weather caused the Grumman Avengers of the strike force to divert to the alternative target, the oil port and railway yards of Belawan Deli near Medan. Here too the weather was poor with low cloud and squalls preventing the bombers from carrying out an effective attack but the escorting Corsairs strafed several Japanese airfields around Sabang and destroyed a number of Japanese aircraft on the ground. The only loss to the British was one Avenger which ditched just after take-off, whose crew were recovered safely and Force 67 returned to Ceylon on 22 December.



'Operation Lentil'

'Operation Robson' was followed by 'Operation Lentil' on 4 January 1945, which was a second attempt to launch an air strike on the oil refinery at Pangkalan Brandon. The ships used on this occasion were designated Force 65 which was made up of the aircraft carriers *HMS Indomitable* with Nos 857, 1839 and 1844 Sqns; *HMS Victorious* with Nos 849, 1834, and 1836 Sqns; *HMS Indefatigable* with a Flight of five Hellcat PR Mk IIs from No 888 Sqn and Nos 820, 887, 894, and 1770 Sqns; cruisers *HMS Suffolk*, *Ceylon*, *Argonaut* and *Black Prince*; destroyers *HMS Kempenfelt*, *Whelp*, *Wager*, *Grenville*, *Urania*, *Undaunted*, *Undine*, *Ursa*, with the submarines *HMS Thorough* and *Statesman* to provide Search and Rescue.

In terms of the number of aircraft deployed, this was the Royal Navy's largest assault on the Japanese to date. The three carriers embarked eighty-

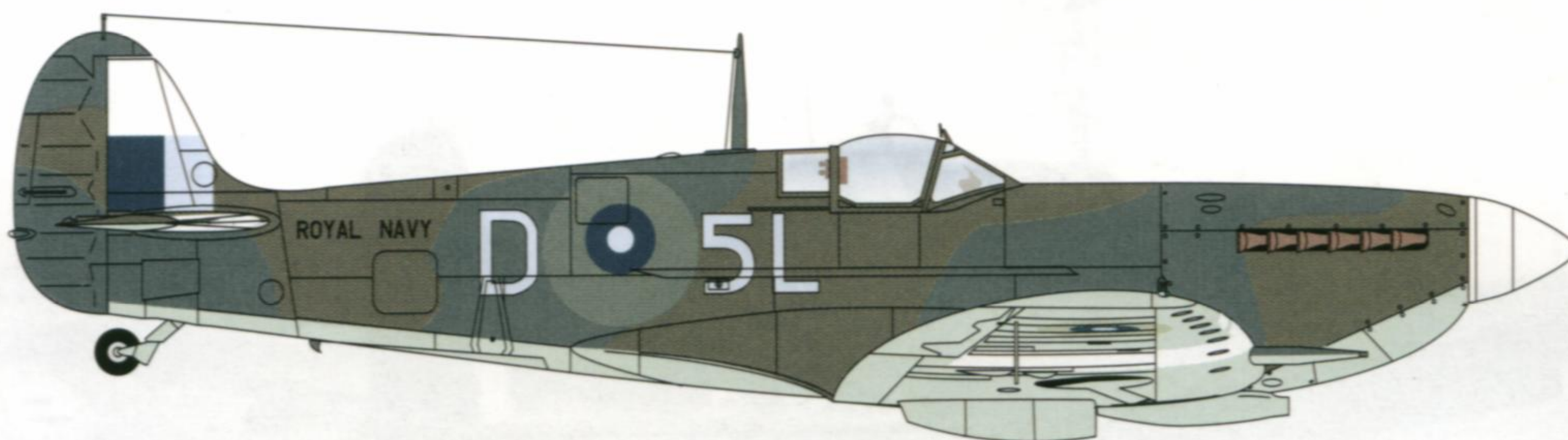


eight fighters, sixty-three strike aircraft, twelve fighter bombers and the five photographic reconnaissance Hellcats.

The first offensive fighter sweeps, known as 'Ramrods', took off at 0610 on 4 January. On this occasion, the weather held up and the strike was carried out with twenty-eight attack aircraft escorted by thirty-two fighters which inflicted substantial damage on the oil refinery and claimed fifteen Japanese aircraft destroyed for the loss of three British aircraft. Although these two operations were not without problems or casualties, the learning experience for the Fleet as a whole was invaluable, albeit reinforcing Rear Admiral Vian's very unfavourable opinion of the Seafire.

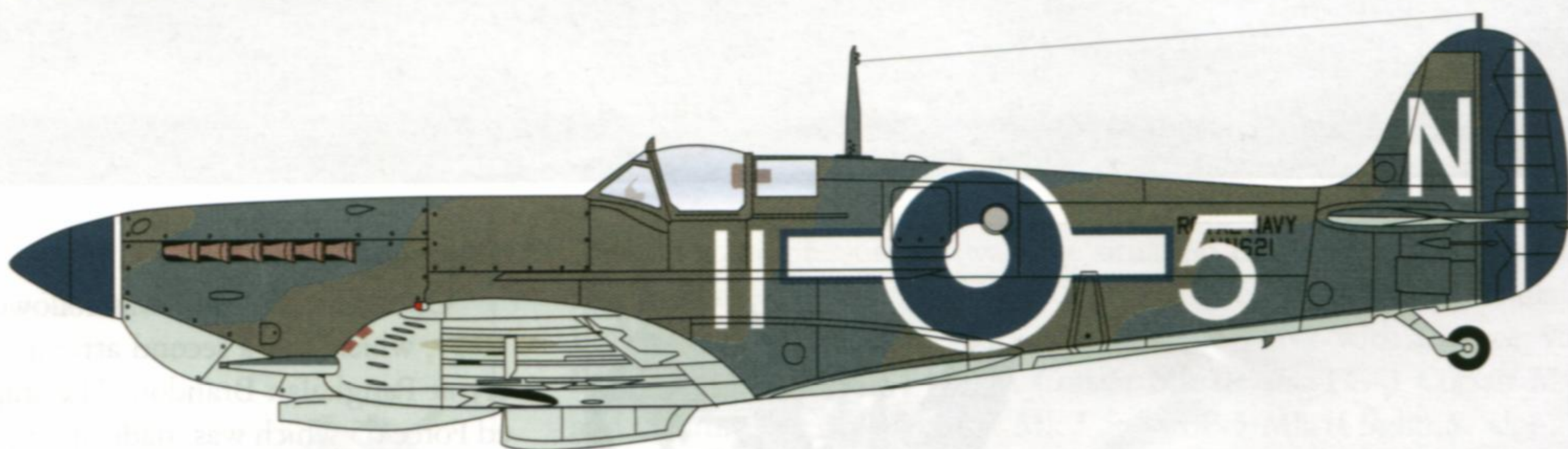
'Operation Meridian'

With the BPF due to move from Ceylon to the Pacific in January 1945, Admiral Nimitz requested that whilst en-route, the Fleet should take the



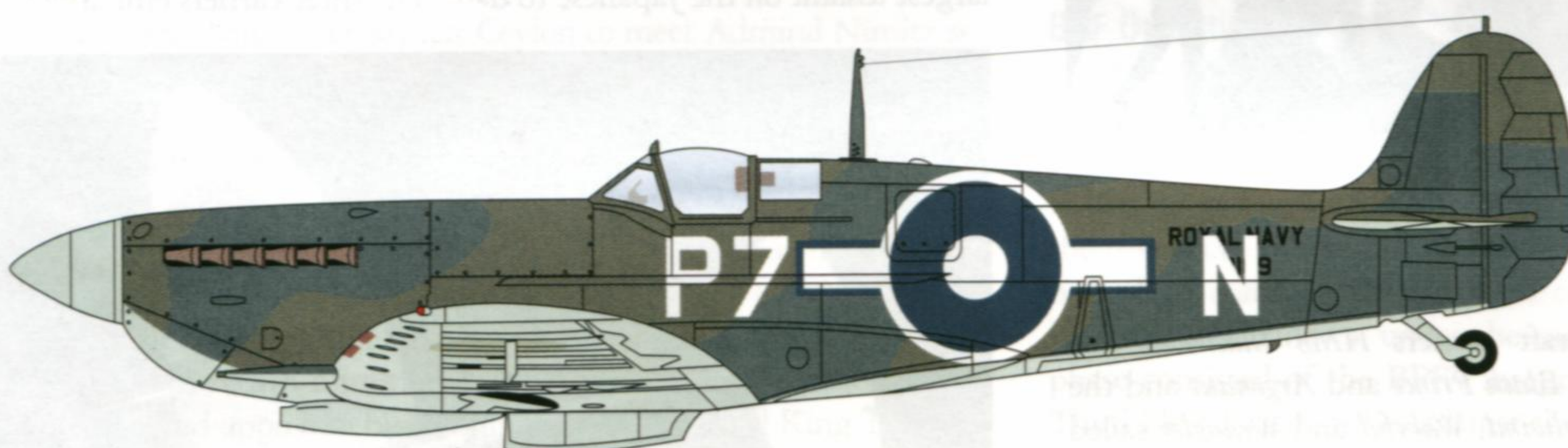
Seafire Mk F III, PP991, D5-L of No 807 NAS, HMS Hunter, British East Indies Fleet, Malacca Strait, circa March 1945

Temperate Sea Scheme of Extra Dark Sea Grey and Dark Slate Grey upper surfaces, with Sky under surfaces. The original ETO markings have been overpainted in matching camouflage colours and smaller diameter, South East Asia Command style, blue and pale blue roundels applied. The standard ETO Fin marking was also modified to suit. Note the white spinner, and identification bands around the mainplanes, tailplanes and fin.



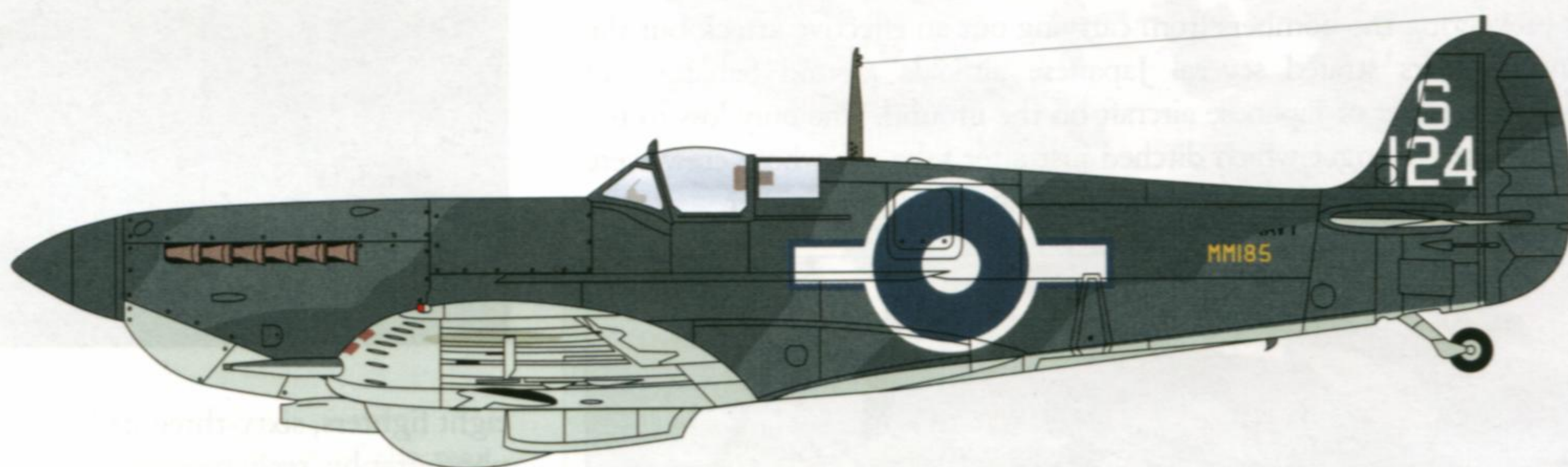
Seafire Mk FR III, NN621, 115/N, of No 880 NAS, HMS Implacable, British Pacific Fleet, 8th Carrier Air Group, May 1945, flown by Lt/Cdr Mike Crosley, DSC

Finished in the Temperate Sea Scheme with Sky under surfaces, its original ETO National markings were overpainted and British Pacific Fleet markings applied above the starboard and below the port mainplanes and on either side of the fuselage. The fin markings were painted out in matching camouflage colours. Note the blue rudder with thin white stripe and the blue propeller spinner with white back plate.



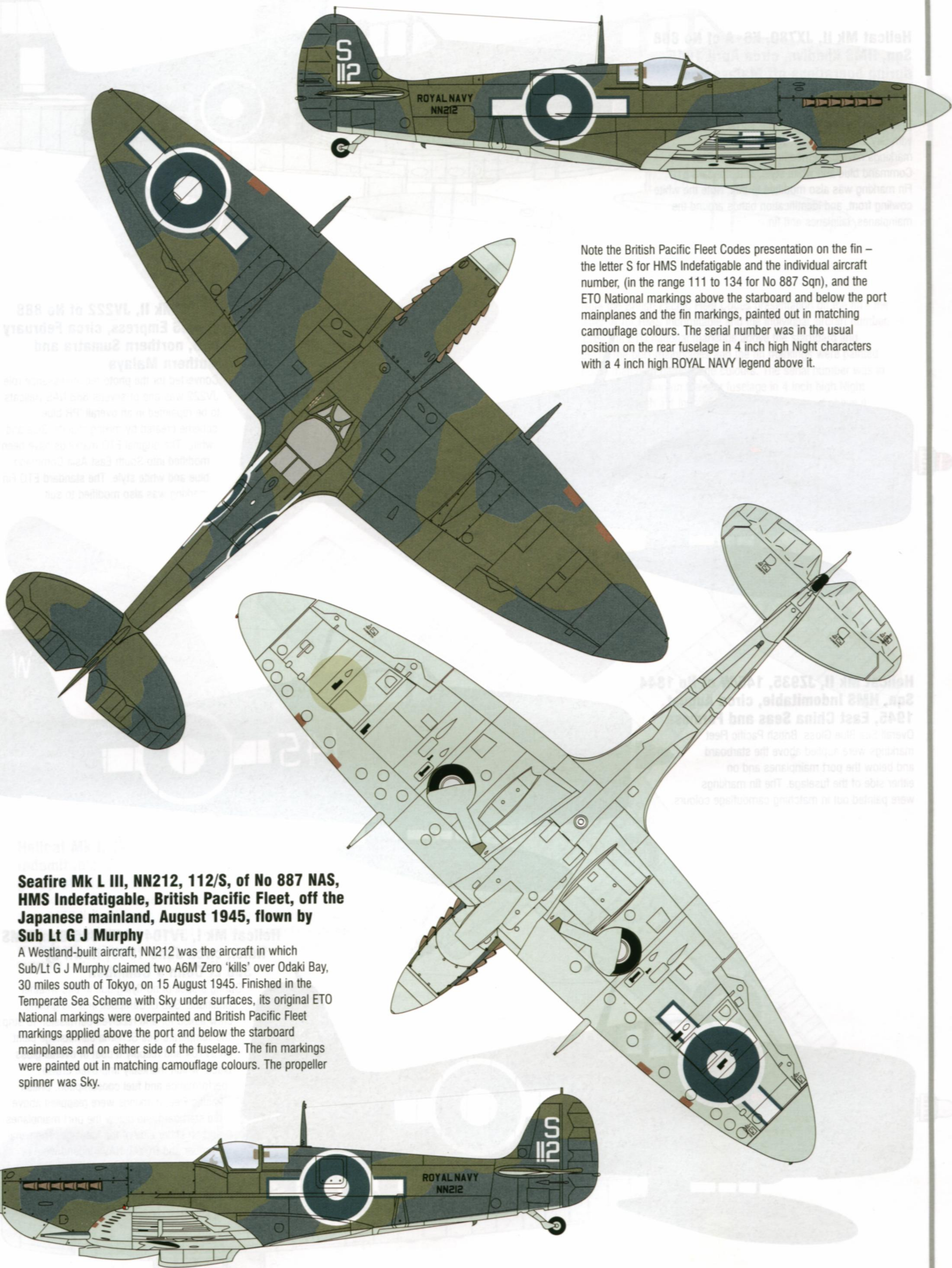
Seafire Mk L III, PR189, P7-N, of No 801 NAS, HMS Implacable, British Pacific Fleet, 8th Carrier Air Group, circa May 1945

Finished in the Temperate Sea Scheme with Sky under surfaces, its original ETO National markings were overpainted and British Pacific Fleet markings applied above the port and below the starboard mainplanes and on either side of the fuselage. The fin markings were painted out in matching camouflage colours. The propeller spinner was Sky.



Seafire Mk L III, NN185, 124/S, of No 887 NAS, HMS Indefatigable, British Pacific Fleet, Schofields, Australia, September 1945

Following the cessation of hostilities in August 1945, the ship and its aircraft were overhauled, and NN185 emerged from the paint shop with the Dark Slate Grey upper surface areas overpainted with a fresh coat of Extra Dark Sea Grey, essentially giving an Extra Dark Sea Grey over Sky scheme. For some reason the serial number was reapplied in yellow but the prefix letters were inadvertently changed to MM, (instead of NN), giving the serial number MM185! British Pacific Fleet markings were retained above the port and below the starboard wings and on either side of the fuselage.



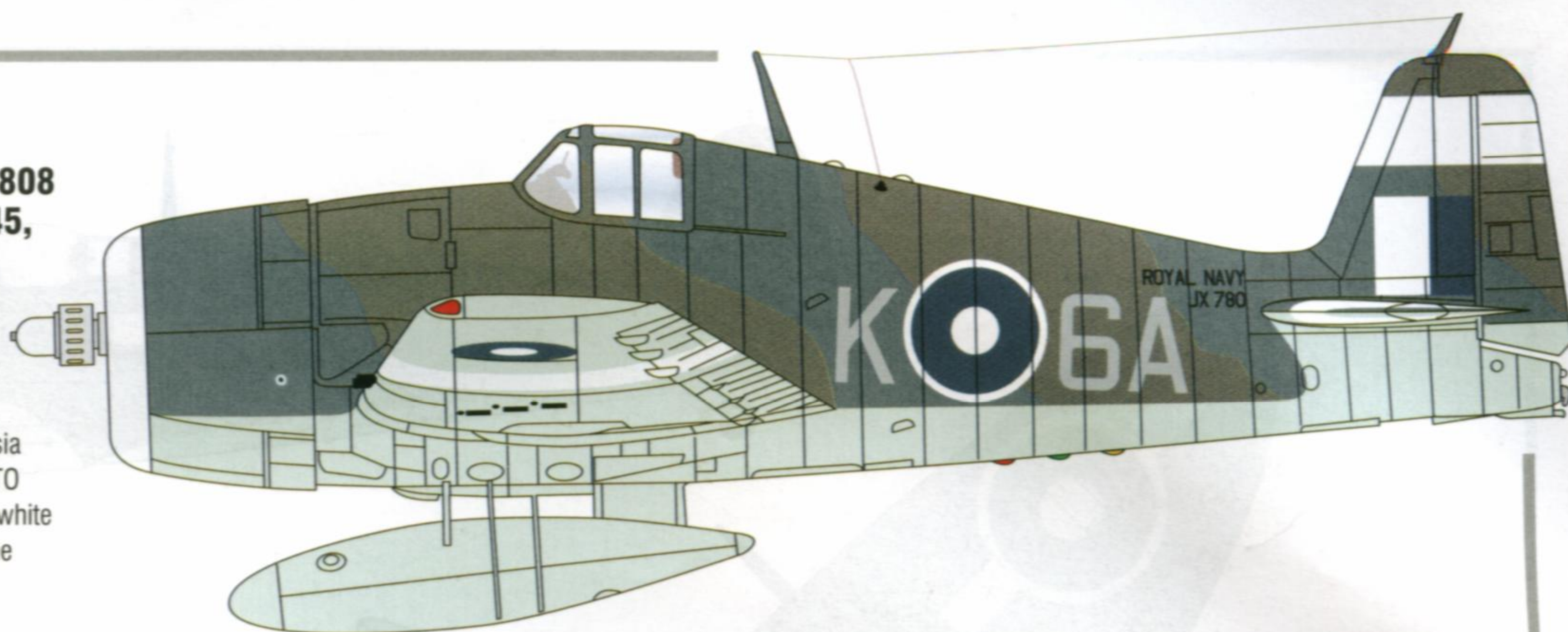
Note the British Pacific Fleet Codes presentation on the fin – the letter S for HMS Indefatigable and the individual aircraft number, (in the range 111 to 134 for No 887 Sqn), and the ETO National markings above the starboard and below the port mainplanes and the fin markings, painted out in matching camouflage colours. The serial number was in the usual position on the rear fuselage in 4 inch high Night characters with a 4 inch high ROYAL NAVY legend above it.

Seafire Mk L III, NN212, 112/S, of No 887 NAS, HMS Indefatigable, British Pacific Fleet, off the Japanese mainland, August 1945, flown by Sub Lt G J Murphy

A Westland-built aircraft, NN212 was the aircraft in which Sub/Lt G J Murphy claimed two A6M Zero 'kills' over Odaki Bay, 30 miles south of Tokyo, on 15 August 1945. Finished in the Temperate Sea Scheme with Sky under surfaces, its original ETO National markings were overpainted and British Pacific Fleet markings applied above the port and below the starboard mainplanes and on either side of the fuselage. The fin markings were painted out in matching camouflage colours. The propeller spinner was Sky.

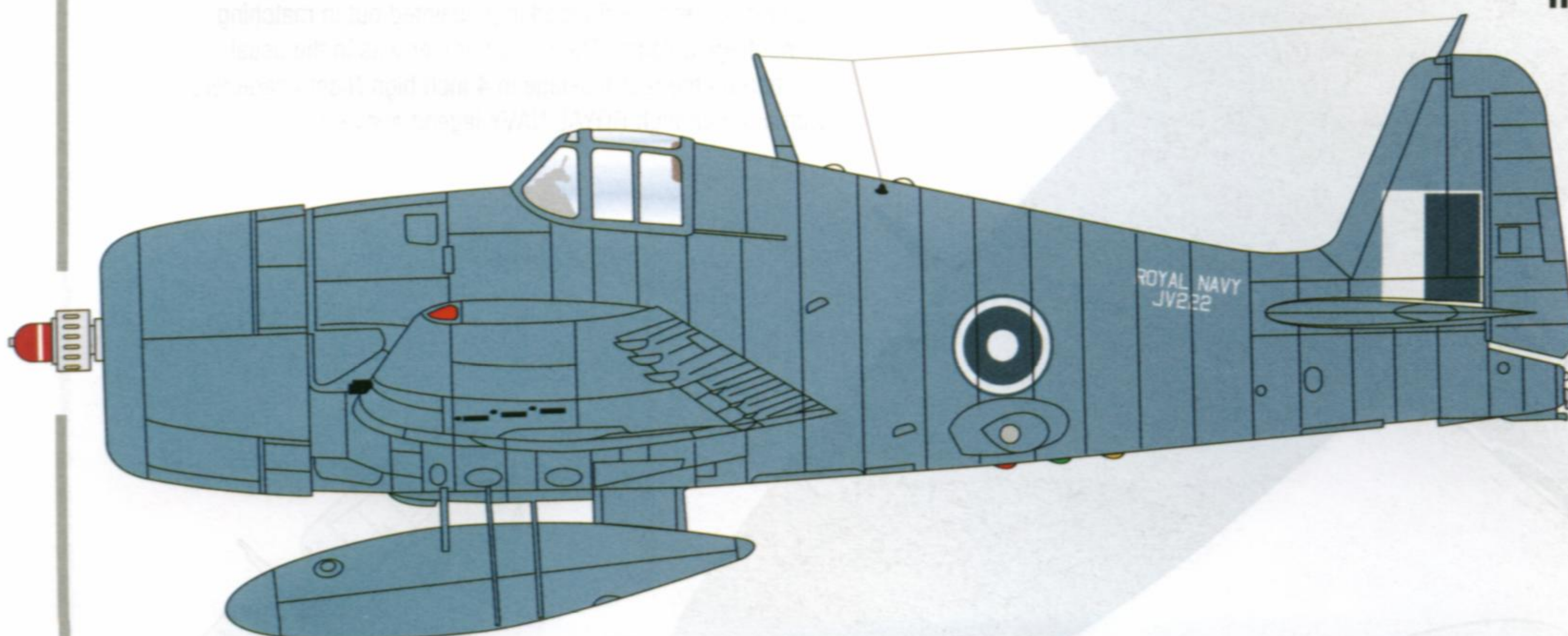
Hellcat Mk II, JX780, K6-A of No 808 Sqn, HMS Khedive, circa April 1945, during operations off Malaya and Sumatra

Temperate Sea Scheme of Extra Dark Sea Grey and Dark Slate Grey upper surfaces, with Sky under surfaces. The original ETO markings have been modified into South East Asia Command blue and white style. The standard ETO Fin marking was also modified to suit. Note the white cowling front, and identification bands around the mainplanes, tailplanes and fin.



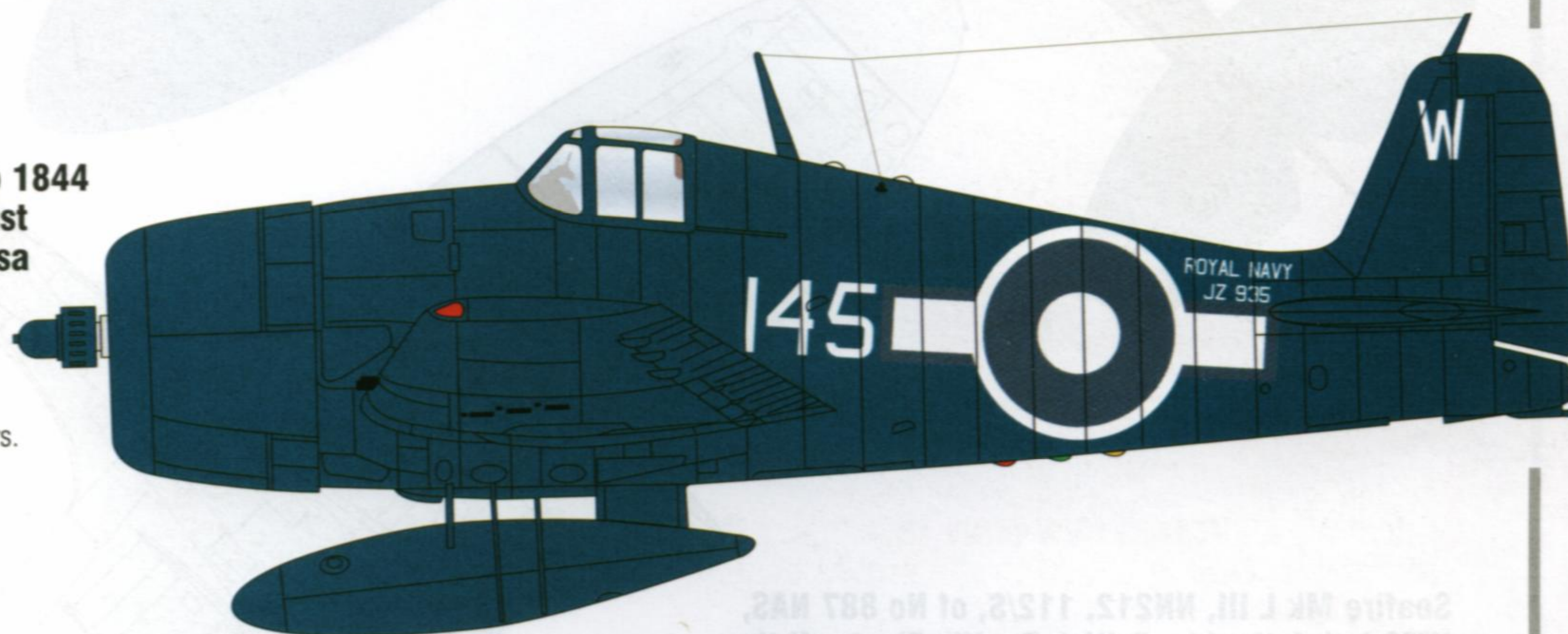
Hellcat PR Mk II, JV222 of No 888 Sqn, HMS Empress, circa February 1945, northern Sumatra and southern Malaya

Converted for the photo reconnaissance role, JV222 was one of several 888 NAS Hellcats to be repainted in an overall 'PR blue' scheme created by mixing roundel Blue and white. The original ETO markings have been modified into South East Asia Command blue and white style. The standard ETO Fin marking was also modified to suit.



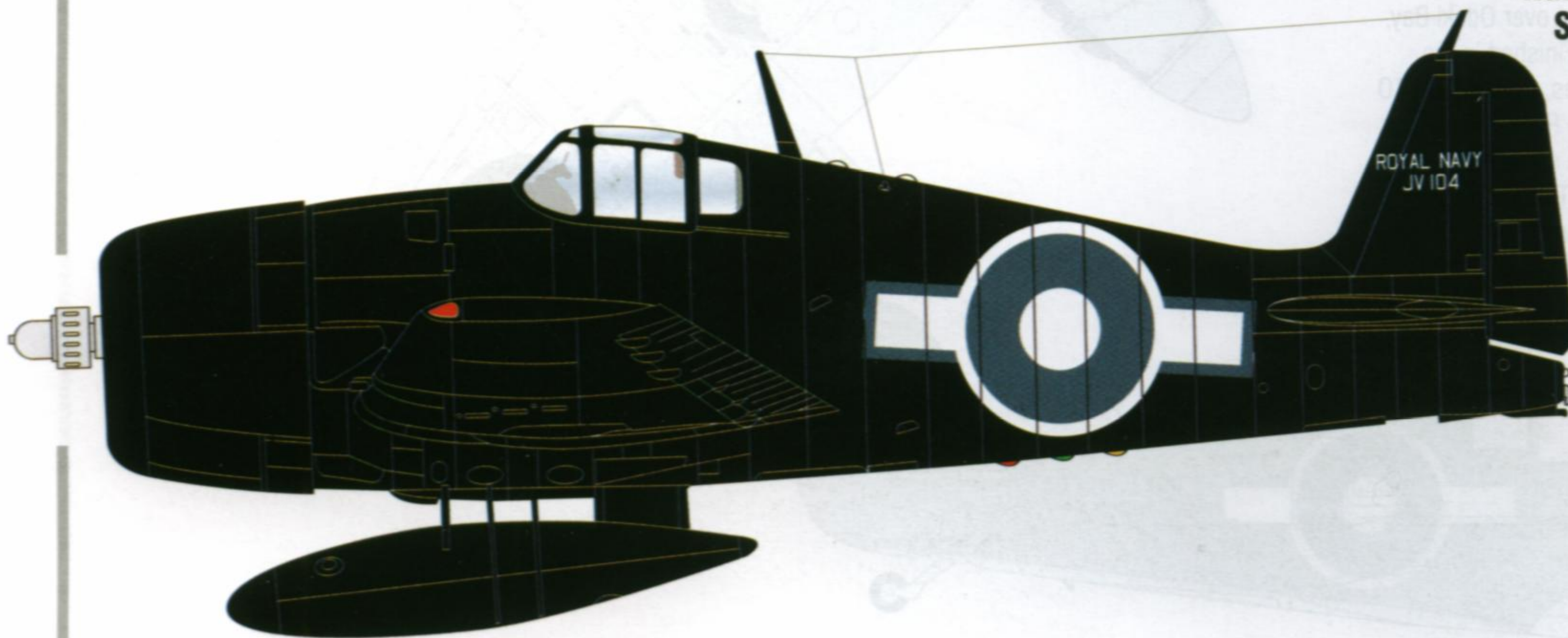
Hellcat Mk II, JZ935, 145/W of No 1844 Sqn, HMS Indomitable, circa August 1945, East China Seas and Formosa

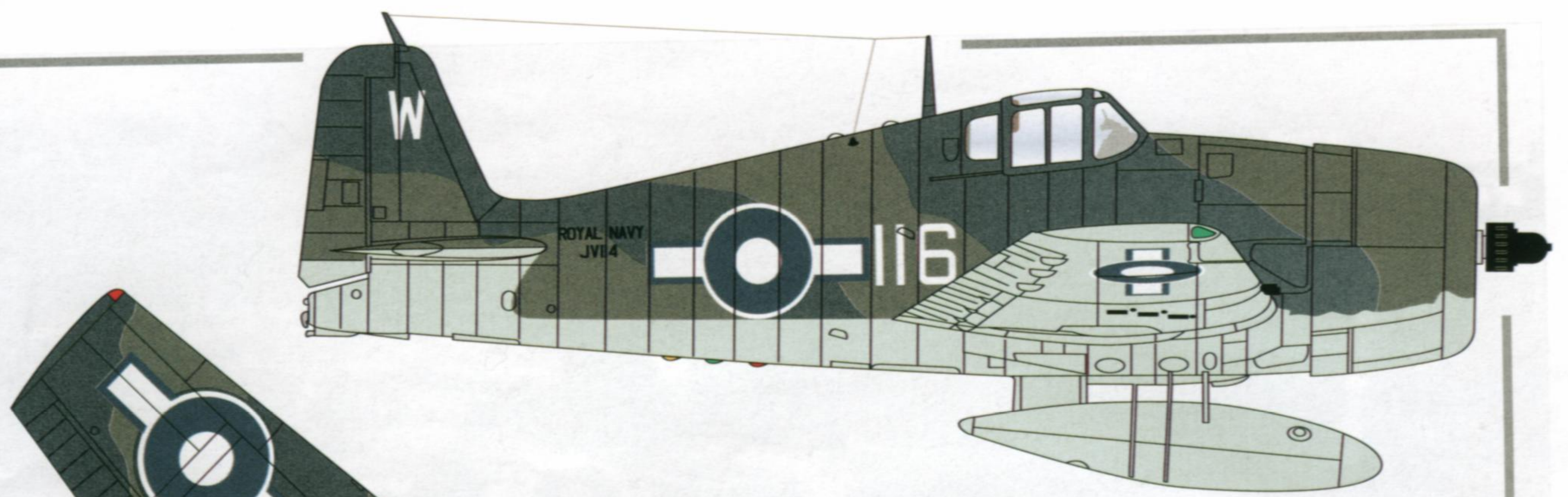
Overall Sea Blue Gloss. British Pacific Fleet markings were applied above the starboard and below the port mainplanes and on either side of the fuselage. The fin markings were painted out in matching camouflage colours.



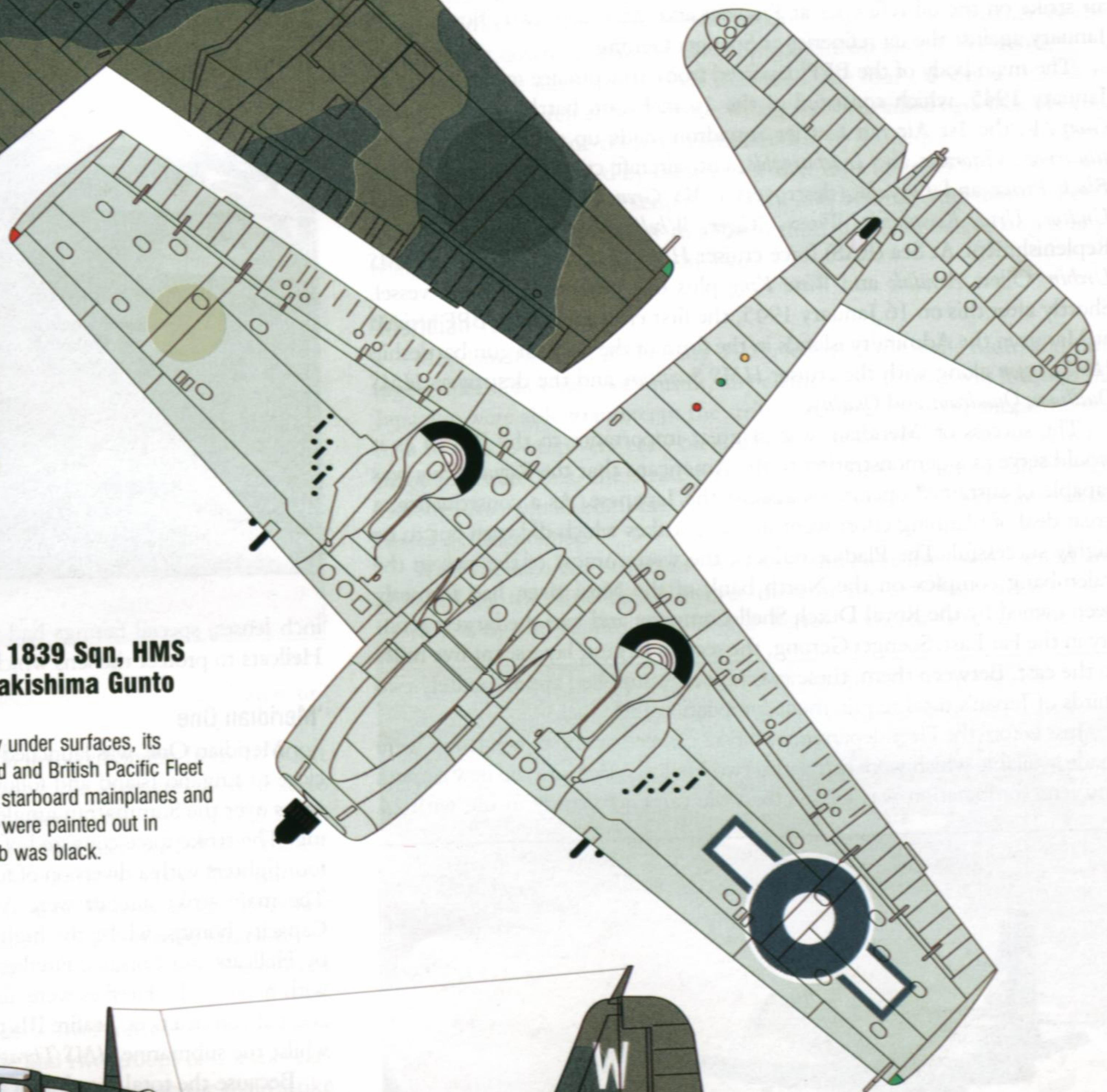
Hellcat Mk I, JV104 of No 885 Sqn, HMS Ruler, circa June 1945, flown by Sub Lt Colin J Campbell

During a spell of no-flying due to bad weather conditions, Sub Lt Campbell and his ground crew asked for and received permission to strip the Temperate Sea Scheme camouflage paint off JV104 and reapply a coat of overall gloss black, which markedly improved cruise performance and fuel consumption. British Pacific Fleet markings were reapplied above the starboard and below the port mainplanes and on either side of the fuselage. The serial number and ROYAL NAVY legend were re applied to the fin in white.



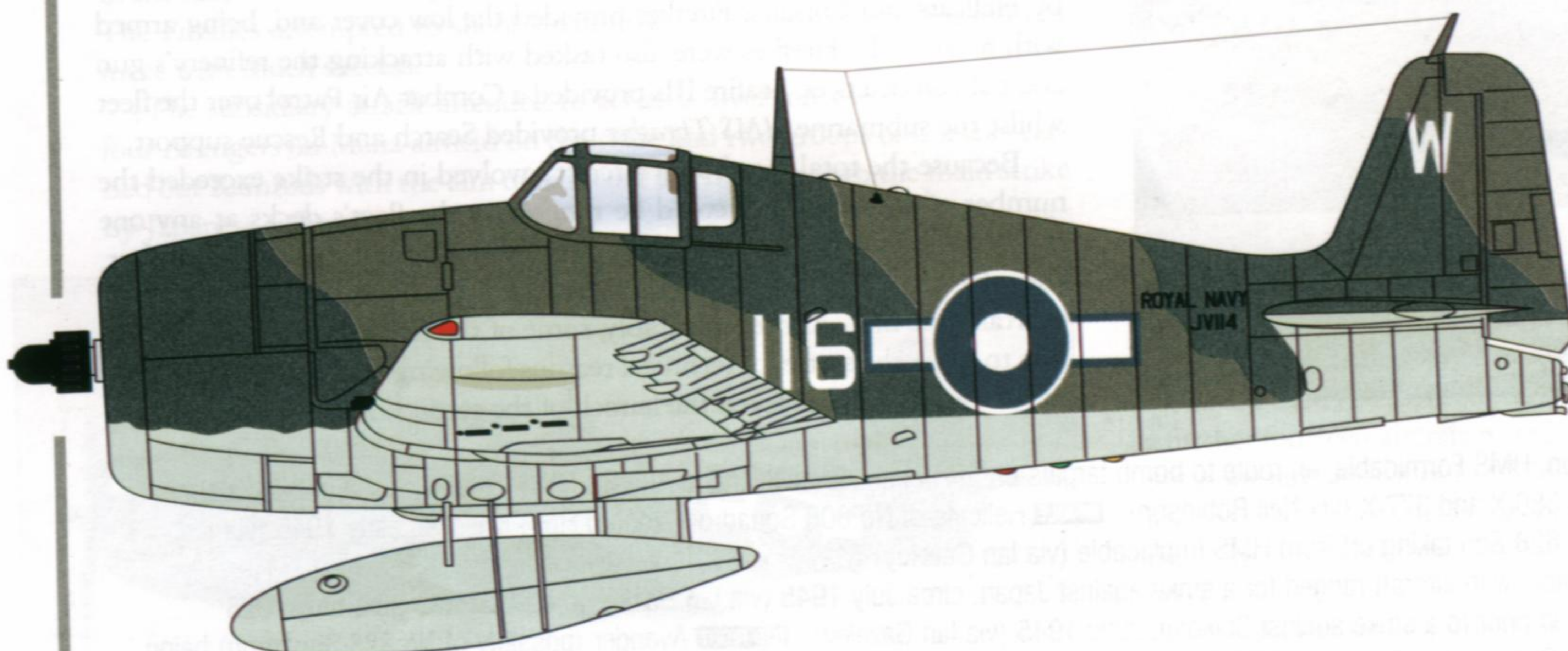


Note the British Pacific Fleet Codes presentation on the fin - the letter W for HMS Indomitable and the individual aircraft number, 116. The ETO national markings above the starboard and below the port mainplanes and the fin markings were painted out in matching camouflage colours. The serial number was in the usual position on the rear fuselage in 4 inch high Night characters with a 4 inch high ROYAL NAVY legend above it.



Hellcat Mk I, JV114, 116/W of No 1839 Sqn, HMS Indomitable, April 1945, off the Sakishima Gunto group of island, East China Seas

Finished in the Temperate Sea Scheme with Sky under surfaces, its original ETO National markings were overpainted and British Pacific Fleet markings applied above the port and below the starboard mainplanes and on either side of the fuselage. The fin markings were painted out in matching camouflage colours. The propeller hub was black.



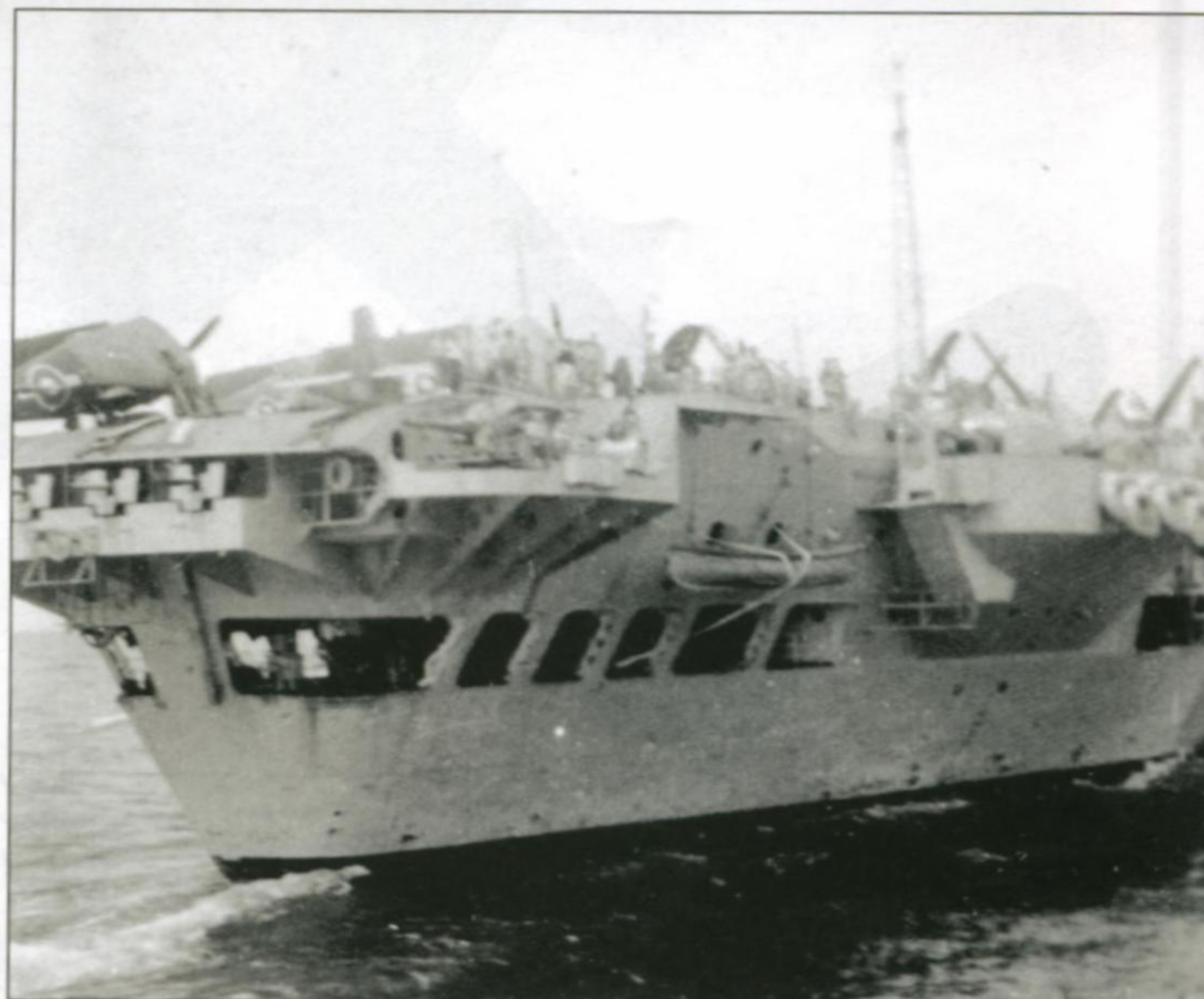


opportunity to launch a major air strike on the oil refineries at Palembang in southern Sumatra. This operation, code named 'Meridian', was carried out in two phases; 'Meridian One', flown on 24 January 1945 which was an air strike on the oil refineries at Pladjoe; and 'Meridian Two', flown on 29 January against the oil refineries at Soengei Gerong.

The main body of the BPF departed from Trincomalee in Ceylon on 16 January 1945, which consisted of the 14 inch gun battleship *HMS King George V*, the 1st Aircraft Carrier Squadron made up of *HMS Indomitable*, *Illustrious*, *Victorious* and *Indefatigable*; anti-aircraft cruisers *HMS Argonaut*, *Black Prince* and *Euryalus*, destroyers *HMS Grenville*, *Urania*, *Undaunted*, *Undine*, *Ursa*, *Kempenfelt*, *Wessex*, *Wager*, *Whelp*, *Whirlwind* and *Wakeful*, Replenishment At Sea (RAS) force cruiser *HMS Ceylon* and destroyer *HMS Urchin*, Oilers *Arndale* and *Wave King* plus one other unidentified vessel. Shortly after this on 16 January 1945, the first elements of the BPF arrived at Manus in the Admiralty islands in the form of the 14 inch gun battleship *HMS Anson* along with the cruiser *HMS Swiftsure* and the destroyers *HMS Quilliam*, *Quadrant* and *Quality*.

The success of 'Meridian' was of great importance to the British as it would serve as a demonstration to the Americans that the Royal Navy was capable of sustained operations against the Japanese. As a consequence, a great deal of planning effort went into the strikes which did turn out to be highly successful. The Pladjoe refinery, the westernmost of the two in the Palembang complex on the North bank of the Musi river, had formerly been owned by the Royal Dutch Shell Company and was the largest refinery in the Far East. Soengei Gerong, the second largest, lay a scant five miles to the east. Between them, these two refineries supplied approximately two thirds of Japan's total requirement for aviation fuel.

Just before the Fleet departed, two F.52 cameras with 36 inch lenses were made available which were fitted into two Hellcats. Because the new camera and lens combination was longer than the cameras already in use with 14



inch lenses, special fairings had to be hurriedly designed and fitted to the Hellcats to protect the lens which now projected beneath the fuselage.

'Meridian One'

'Meridian One' was launched at approximately 0700 hrs from a position close to Engano Island and followed a route which entailed a flight of 100 miles over the Sumatran jungle and the Barisan Mountains before attacking. The strike force consisted of forty-three strike aircraft escorted by fifty-four fighters with a diversion of four strike aircraft escorted by forty fighters. The main strike aircraft were Avengers, armed with four 500lb Medium Capacity bombs, whilst the high and medium altitude cover was provided by Hellcats and Corsairs. Fireflies provided the low cover and, being armed with rockets, the Fireflies were also tasked with attacking the refinery's gun and balloon defences. Seafire IIIs provided a Combat Air Patrol over the fleet whilst the submarine *HMS Thrasher* provided Search and Rescue support.

Because the total number of aircraft involved in the strike exceeded the number of aircraft which could be ranged on the fleet's decks at any one time, the Avengers and their close escort were ranged and launched first, with the remainder of the fighter escort forming a second range intended to overtake the first. Almost inevitably, some of the first range found it necessary to abort the sortie for technical reasons following launch, and the recovery of these aircraft delayed the launch of the second range! Whilst causing



TOP Avenger Mk Is and IIs, of No 848 Squadron, HMS Formidable, en route to bomb targets on the Japanese mainland in August 1945 - note Honshu in the distance. Photo shows Mk I, JZ114 376/X, Mk II JZ466 380/X and 377/X (via Neil Robinson) **MIDDLE** Hellcats of No 808 Squadron, aboard HMS Khedive, early 1945 (via Ian Gazeley) **BOTTOM** Avenger coded 377/N of No 828 Sqn taking off from HMS Implacable (via Ian Gazeley)

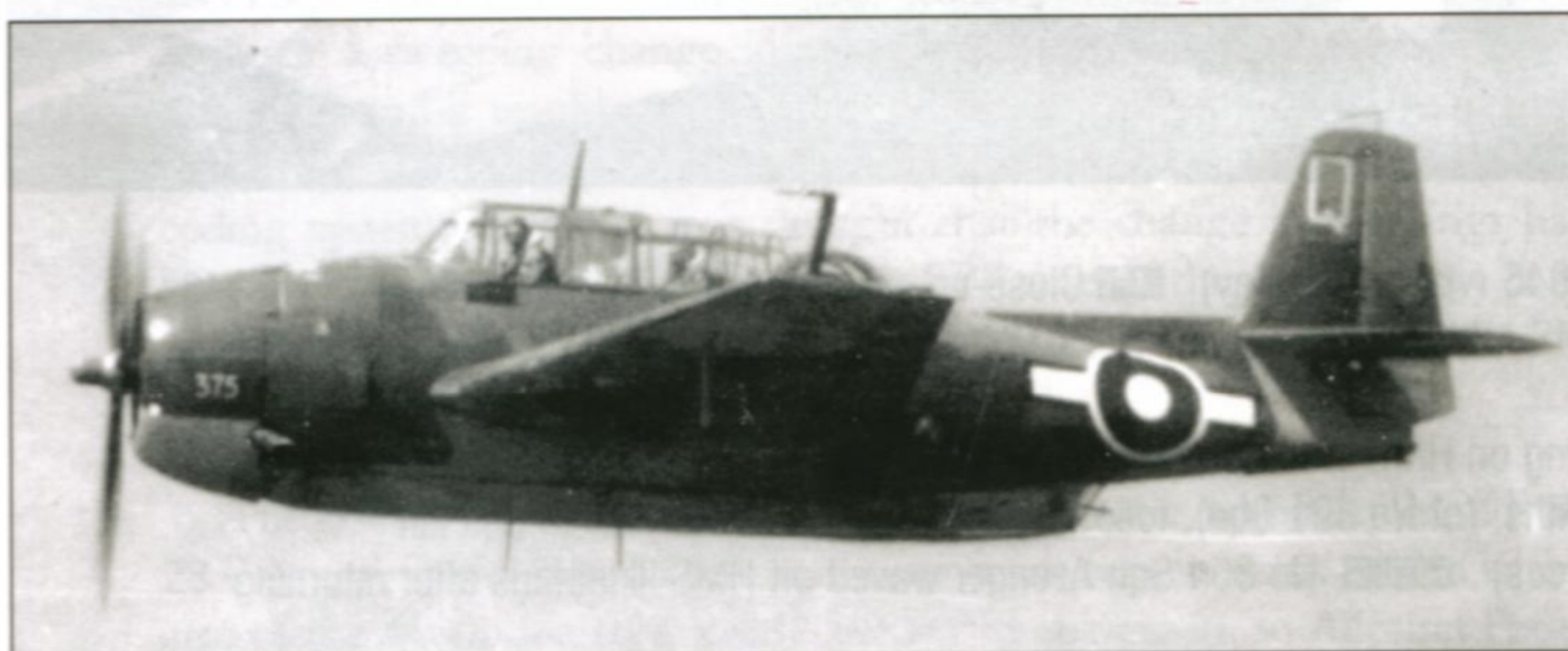
OPPOSITE TOP The aft deck park on HMS Implacable with aircraft ranged for a strike against Japan, circa July 1945 (via Ian Gazeley) **MID LEFT** Avengers of No 828 Squadron onboard HMS Implacable bombing up prior to a strike against Shikoku, June 1945 (via Ian Gazeley) **MID RIGHT** Avenger (possibly of No 828 Squadron) being catapulted off HMS Implacable circa January 1945 (via Ian Gazeley) **BOTTOM** Avenger coded 375/Q of No 854 Sqn, HMS Illustrious, Note the damaged wing of 374/Q in foreground, circa March 1945 (via Ian Gazeley)



few problems, it was found that a 'spare deck' for the recovery of such aircraft would have been most useful.

Using a glide bombing technique which involved diving from 10,000ft down to 3,000ft. before releasing the bombs, the Avengers were able to make highly accurate attacks, placing somewhere in the order of 172 500lb bombs on specific points in the refinery, which had been briefed with the aid of models. Japanese resistance to the attack was fierce. As well as putting up a large amount of anti-aircraft fire, barrage balloons were also launched in the face of the attacking strike aircraft as they were in their attack dives. The Fireflies attempted to shoot them down with cannon fire but did not meet with much success.

The subsidiary attack intended to act as a diversion was carried out by four Avengers on Mana airfield on the coast and two groups of Corsairs carried out Ramrods with the aim of reducing interference with the main strike by Japanese fighters.



The main attack was judged to have been highly successful with the refinery output being reduced to half the pre-strike level. In addition to this, the diversionary attack on Mana airfield led to thirty-four Japanese aircraft being claimed as destroyed on the ground, along with a further twelve claimed shot down in aerial combat. Eleven British aircraft were lost.

Once all the aircraft had been recovered, the four carriers withdrew to the south-west to refuel, an exercise which was bedevilled by a lack of experience and insufficient training compounded by inadequate and outdated equipment. Whilst faced by these immediate difficulties, Admiral Vian was also confronted by a more serious problem as it became clear that the fleet's fuel reserves were insufficient to allow a third strike on Palembang if anything went wrong with Meridian Two.

'Meridian Two'

'Meridian Two', on 29 January 1945, followed the same route and timing as 'Meridian One'. As a result, any element of surprise was lost and the Japanese were able to intercept the strike force and its escort supplemented by a Ramrod sweep very early on and engage it all the way overland to the target. Despite this, the strike force pressed home its attack on Soengei Gerong, once again bombing with extreme accuracy and suffering casualties as a consequence.

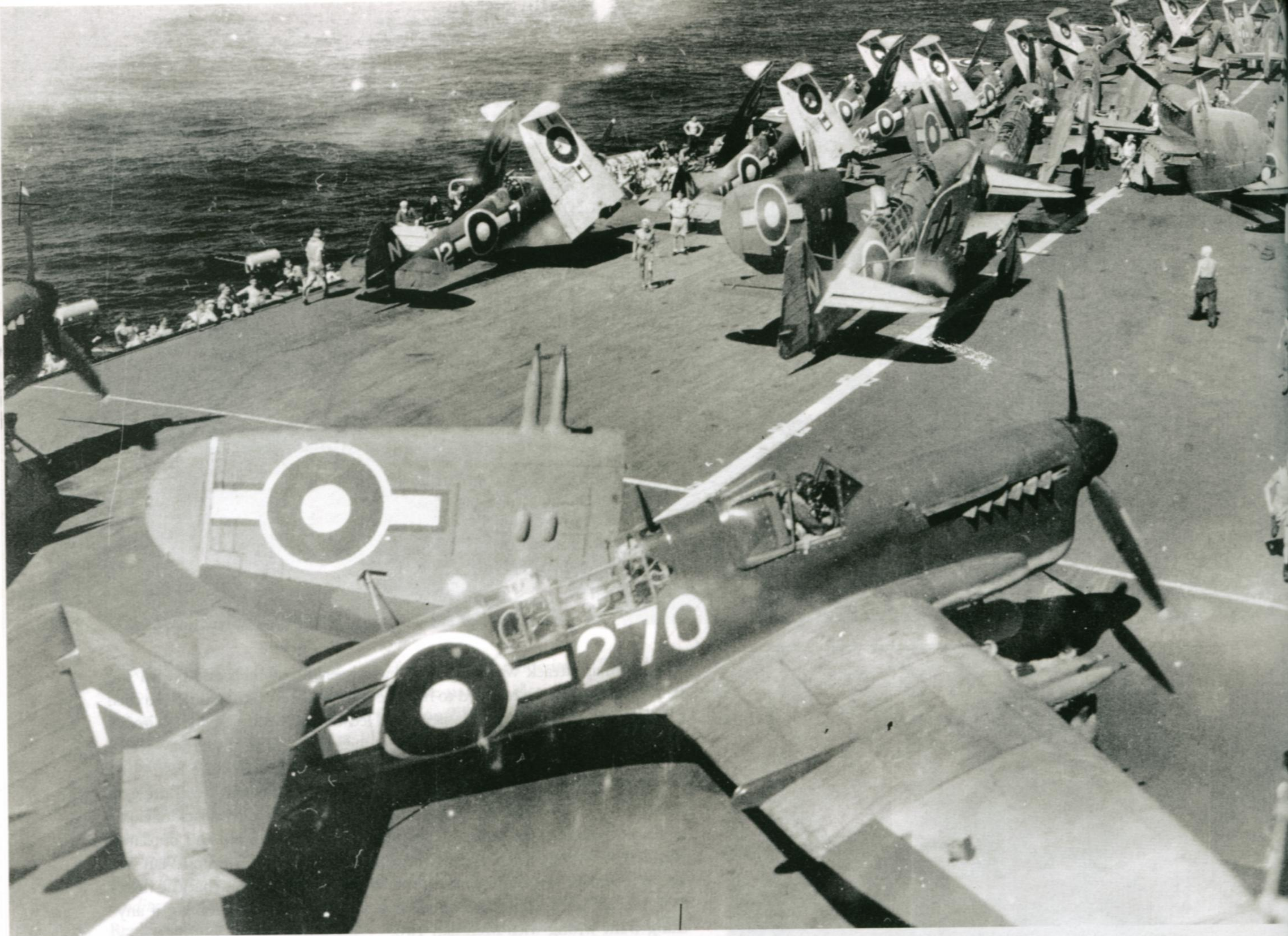
With the element of surprise now lost, the Fleet itself was located and attacked by the Japanese. However most of the attacking aircraft were destroyed by the Seafire Combat Air Patrol from *Indefatigable*. The only



casualties suffered by the Fleet during these attacks were caused by 'friendly' fire which was seen as being an ever-present hazard in a close range anti-aircraft action with a large number of ships sailing in close company.

In all, the FAA lost sixteen aircraft to enemy action, eleven ditched, and a further fourteen aircraft were lost due to deck landing accidents, a total of forty-one aircraft lost out of 378 sorties. The Japanese were thought to have lost twenty-five aircraft in air combat to the Avengers, their close escort and the Ramrods, whilst the CAP claimed a further eight during the attack on the Fleet.

The results were deemed to be worth the casualties incurred, as a significant amount of damage had been caused which stopped the output of



aviation fuel from the refineries altogether for two months and significantly reduced the output thereafter, not regaining more than between one third and one half normal production before the end of the war.

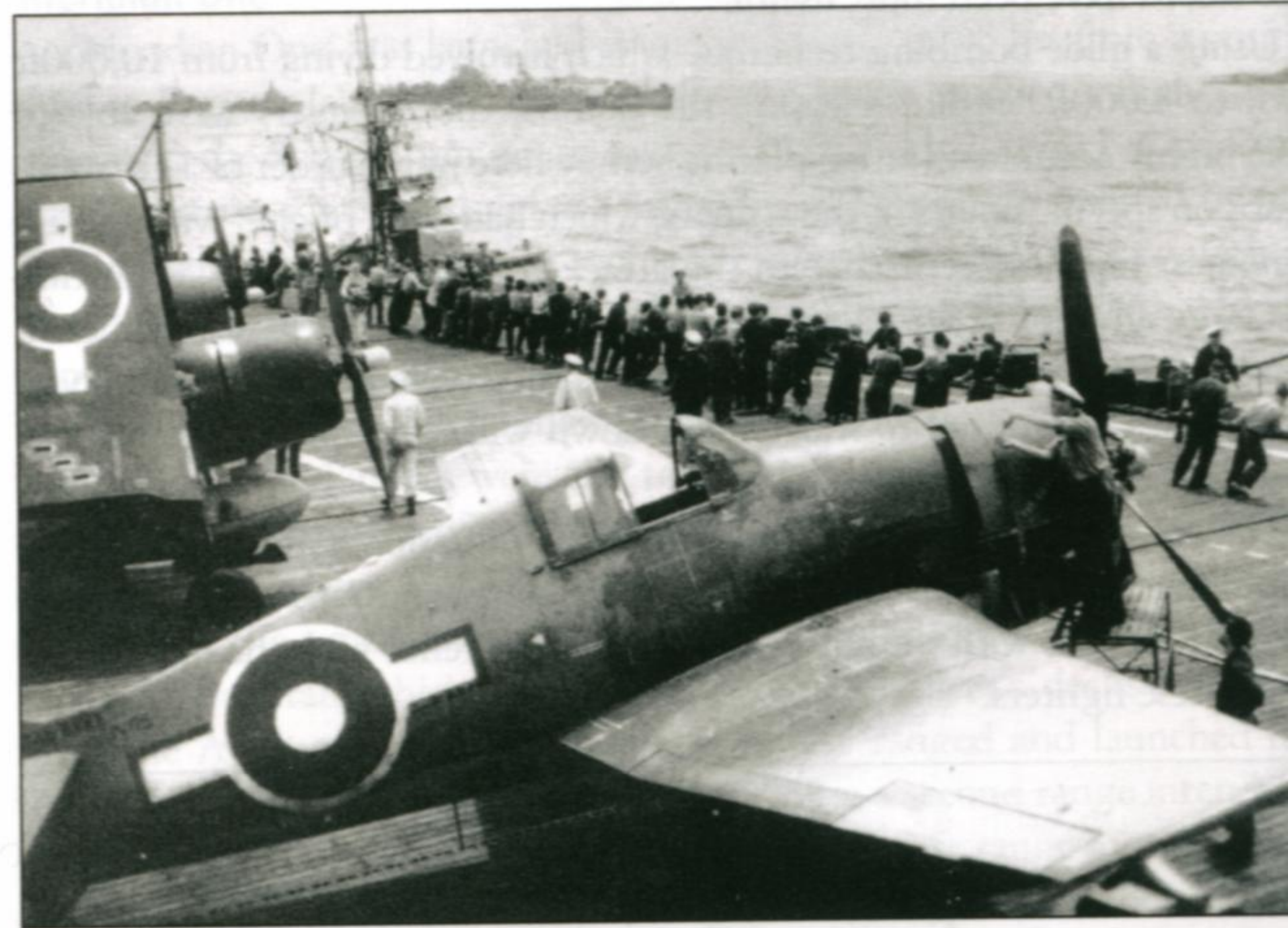
The BPF learned a great deal from these operations. With hindsight it was clear that the planning, whilst thorough, had proved too inflexible. Smoke damage from the first hits on both refineries had obscured targets for the last Avengers, whilst targets at the other refinery remained clear. Bound into this was that by attacking only one refinery in 'Meridian One', the likelihood of a further attack on the second refinery was clearly indicated. This allowed the Japanese to prepare accordingly which led to the heavier casualties suffered during 'Meridian Two'.

An indication of problems to come was also given when refuelling the

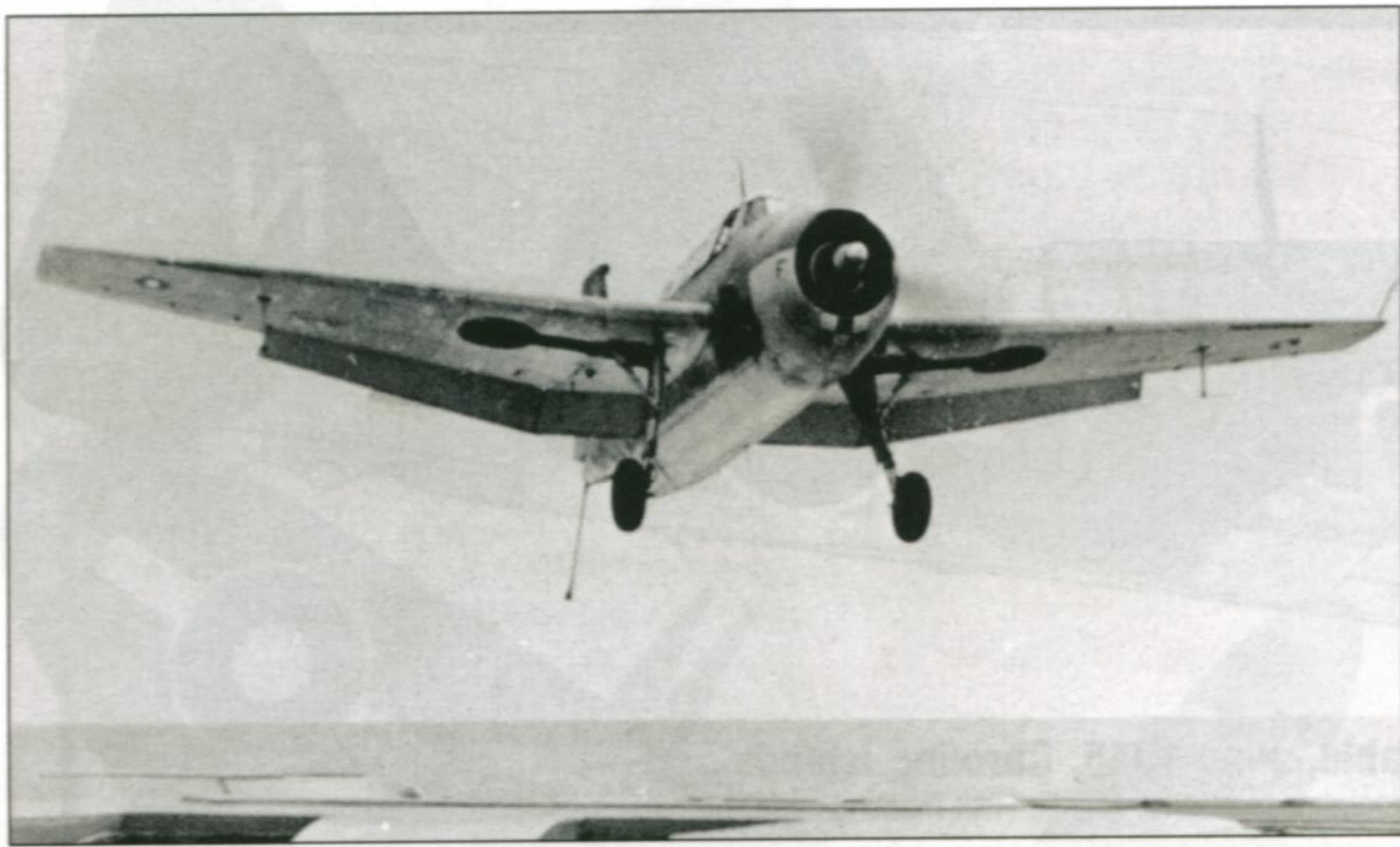
fleet at sea had proved slow and difficult with none of the carriers being able to take on board the amount of fuel they needed in the time available. Without the benefit of a modern fast tanker fleet, capable of a high rate of pumping, this was to become a recurring theme throughout future BPF operations.

A change in markings

The BPF arrived in Sydney on 10 February 1945, and it would appear that it was at about this time that the markings of the BPF's aircraft underwent a radical change to the blue and white 'roundel & bar' marking similar to those carried by US aircraft, which will be described in greater detail in Part Two of 'The British Pacific Fleet November 1944 – September 1945' in the September issue.



TOP Firefly Mk I, MB624, 270/N of No 1771 Squadron, HMS Implacable, circa August 1945 (via Ian Gazeley) **LEFT** Close-up of Avenger Mk I, JZ114, 376/X, of No 84 Sqn, HMS Formidable (via Neil Robinson) **RIGHT** Hellcat Mk I, JV175 of No 885 Sqn, HMS Arbiter, circa August 1945. Possibly photographed at Manus. Note the name 'The Deadbeat' on the engine cowl (Private sources) **OPPOSITE TOP LEFT** Avenger, serial unknown but with individual aircraft letter F on cowl, landing on HMS Victorious in late 1944 or early 1945. Note the underwing roundel (via Ian Gazeley) **TOP RIGHT** Seafire Mk III, PR240, 155/N of No 880 Sqn flown by Lt Griffiths, (of No 801 Sqn), following a 'prang' on 27 May 1945 (via Ian Gazeley) **MIDDLE** HMS Formidable after the kamikaze attack of 4 May 1945 (Private sources) **BOTTOM** No 854 Sqn Avenger waved off HMS Illustrious after returning from attacks on Formosa (IWM)



At the same time as the change to the national markings the format of the identity codes was changed and replaced by a carrier deck letter which was applied to the fin and a three-figure number which was applied to the sides of the fuselage. This will also be described in greater detail in Part Two but for continuity of this narrative text, very briefly, the letter on the fin identified the parent ship, and the fuselage codes identified the type of aircraft – one-, two- or three-seat – and the squadron. Numbers from 111 to 169 were used to identify single-seat aircraft; 270 to 298 were used to identify two-seat aircraft; and 370 to 398 were used for three-seat aircraft.

HMS Indomitable was allocated the deck letter and tail code 'W' which was carried by the aircraft of No 1839 Sqn equipped with Hellcats, coded 111-128, No 1844 Sqn also equipped with Hellcats, coded 131-146 and No 857 Sqn equipped with Avengers were coded 370-377 and 380-386

HMS Victorious was allocated the deck letter and tail code 'P' which was carried by the aircraft of No 1834 Sqn which was equipped with Corsairs coded 111-128, No 1836 Sqn, also equipped with Corsairs, was coded 131-



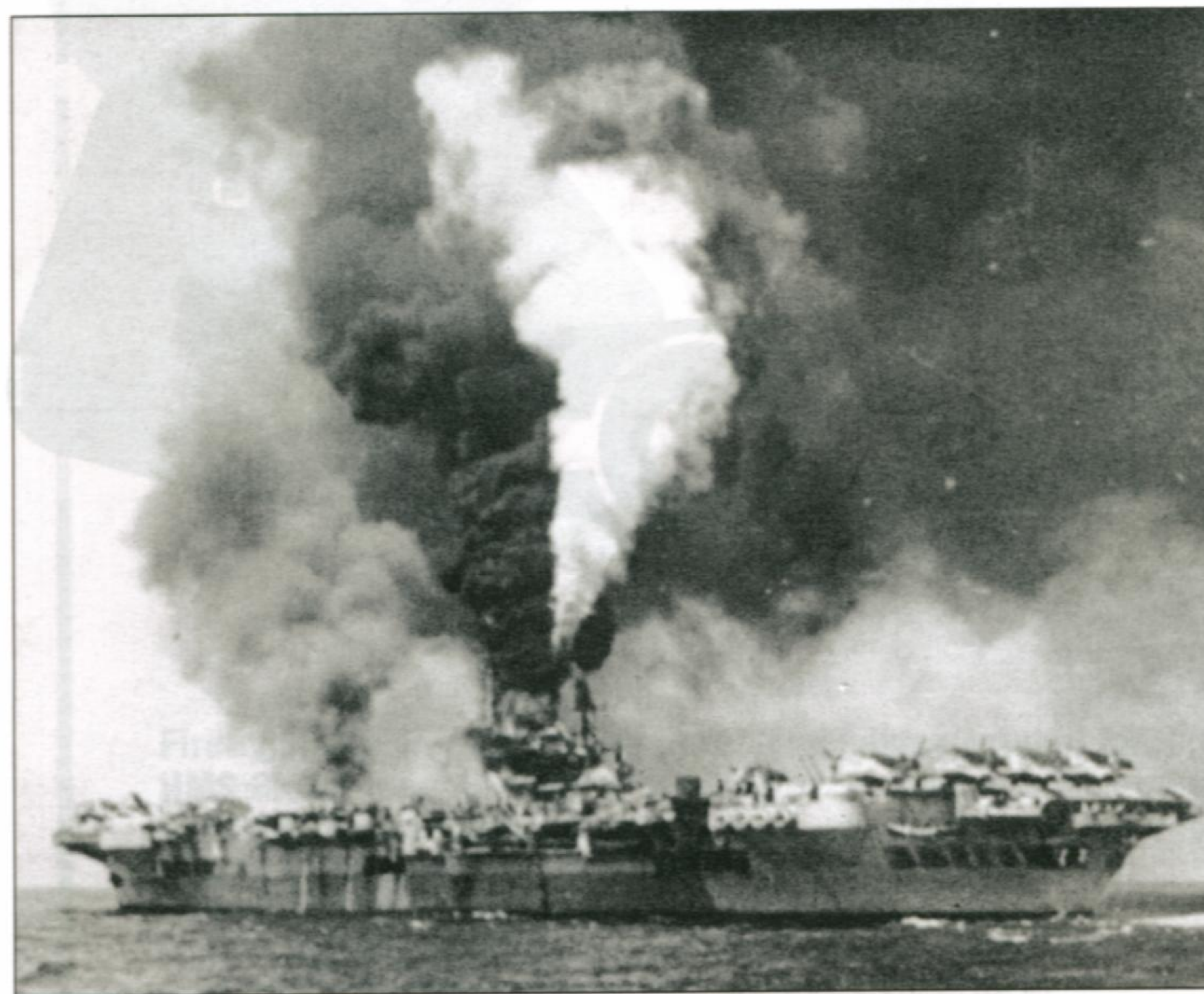
despatched the Fleet to Manus in a gamble that once it was there, Admiral King would assign the fleet to take part in 'Operation Iceberg', the invasion of Okinawa. After a ten day wait at Manus, the BPF was notified on 15 March that it was to become part of the American 5th Fleet under the command of Admiral Raymond Spruance, and was to take part in 'Operation Iceberg' with the designation Task Force 57.

BPF operations phase two – 'Operation Iceberg'

Despite the 'Meridian' operations, the BPF was still considered too inexperienced to take part in the assault on Okinawa itself, being assigned instead to neutralising the six airfields on the islands of Miyako, Ishigaki and Mihara which formed Sakishima Gunto, the group of islands lying between Formosa and Okinawa, through which the Japanese would undoubtedly try to stage aircraft on their way to the combat area. The British plan was to operate a cycle of three strike days followed by two replenishment days alternating with the US Navy escort carriers *USS Santee*, *Suwanee*, *Chenango*, and *Steamer Bay*.

The BPF sailed for its operational area off Sakishima Gunto on 22 March with the first strikes taking place on 26 March. The Avengers flew strikes up to four times a day attacking runways and hard installations such as fuel dumps and hangars. Fighters provided escorts for these strikes as well as providing CAP over the target islands and the Fleet during the hours of daylight. The Fireflies with their rocket armament were found to be particularly useful against the AA defences.

The Operation generally took the form of three days of air strikes followed by two days replenishment from the Fleet Train, in what became a war of attrition as the BPF struggled to deny the Japanese the use of the airfields on the islands. Losses of both aircraft and aircrew were made good



150 and No 849 Sqn equipped with Avengers coded 370-385.

HMS Indefatigable was allocated the deck letter and tail code 'S' which was applied to the Seafires of No 887 Sqn, coded 111-134, No 894 Sqn coded 135-159, the Fireflies of No 1770 Sqn coded 270-281 and No 820 Sqn equipped with Avengers coded 370-389.

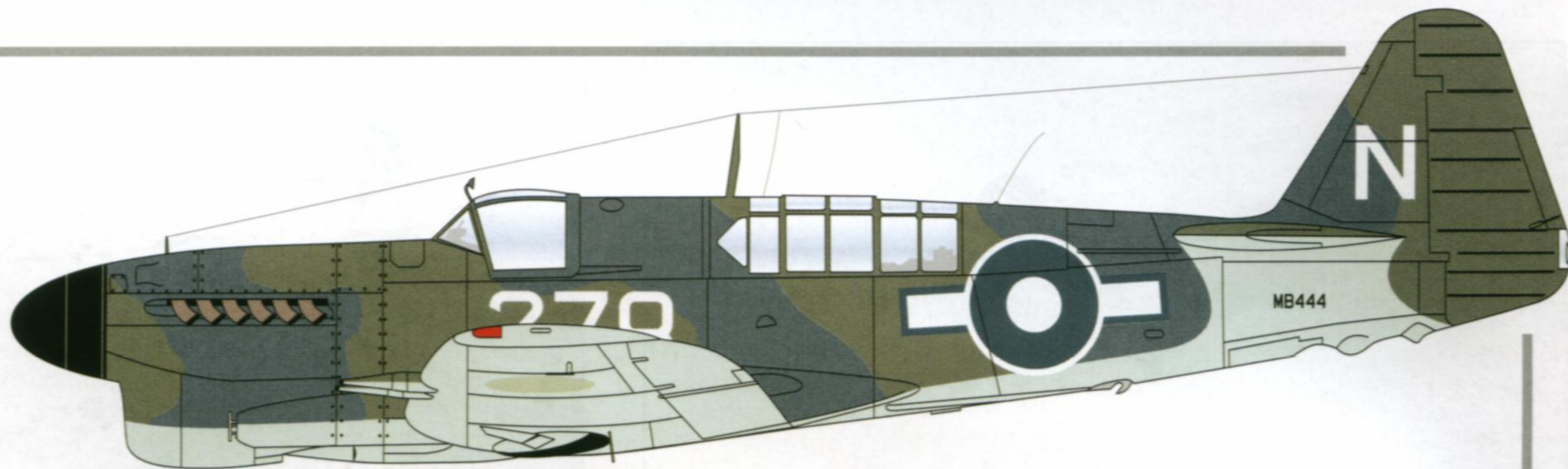
HMS Illustrious was allocated the deck letter tail code 'Q' which was applied to the tails of the Corsairs of No 1830 Sqn coded 111-128, No 1833 Sqn coded 129-147 and the Avengers of No 854 Sqn coded 370-381.

Such a sweeping change in the markings could not be carried out overnight and it would appear that for a short time at least, some aircraft carried the new 'roundel & bar' marking in conjunction with the previous coding system. However, it is thought that the change in markings had been accomplished by the time that the BPF entered the second phase of its operational career, 'Operation Iceberg'.

Across the Pacific

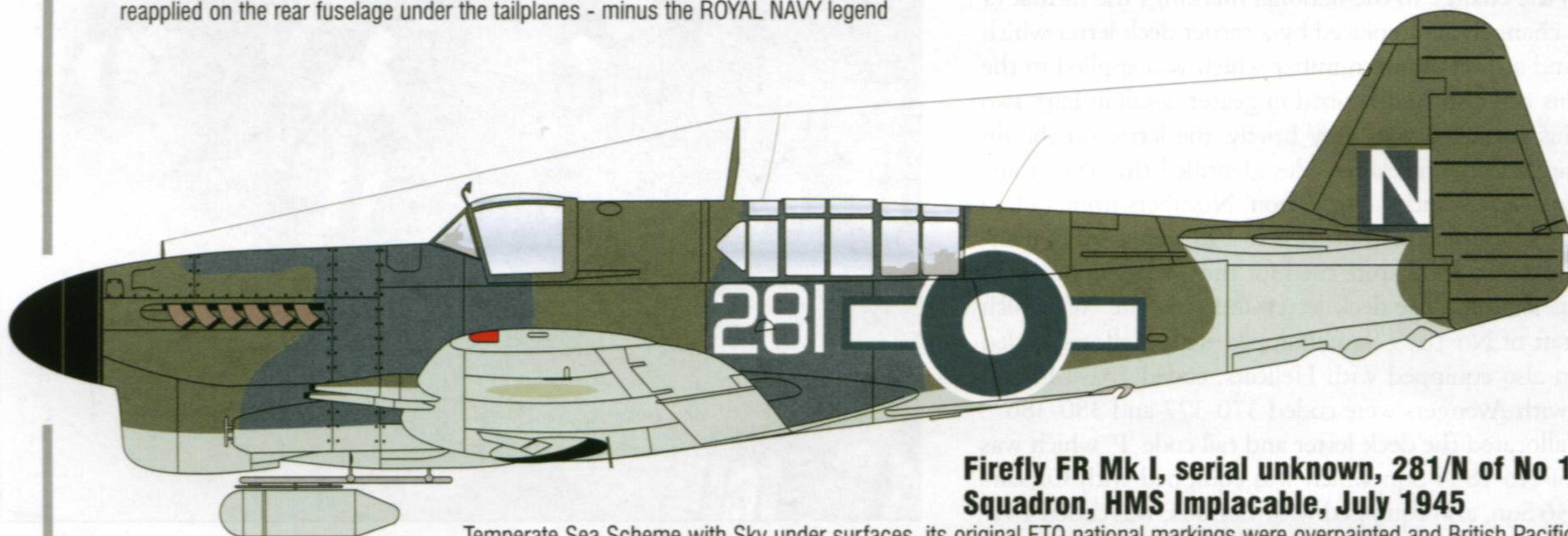
The BPF sailed for its Pacific base at Manus in the Admiralty Islands on 28 February 1945. Even at this late stage it was by no means certain which area of the Pacific the BPF would be sent to operate in, so Admiral Fraser





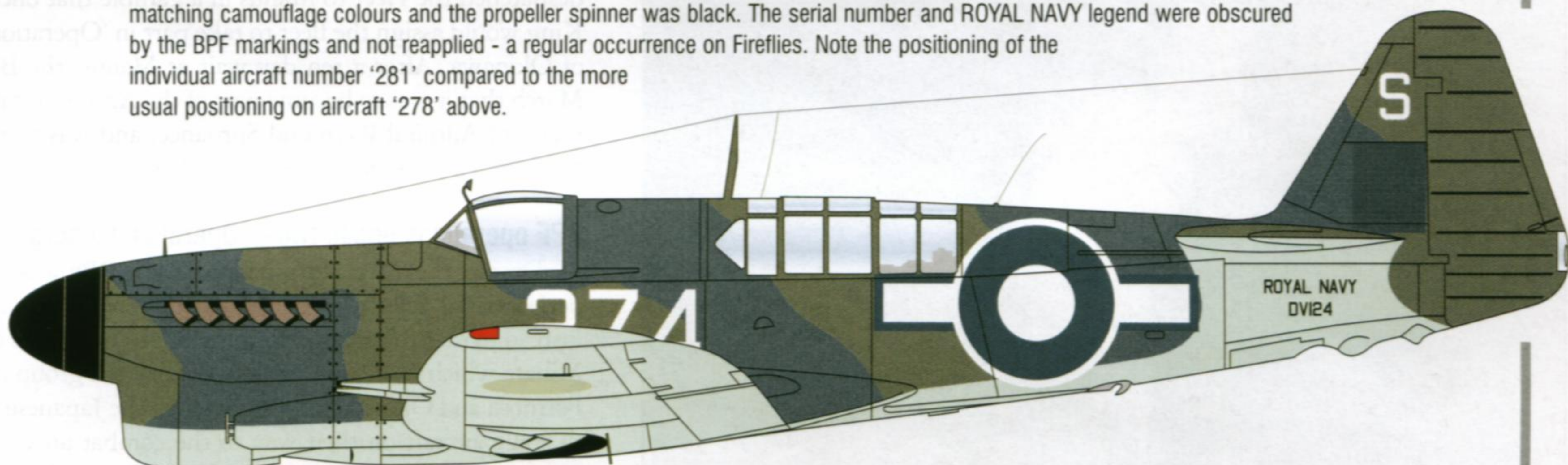
Firefly FR Mk I, MB444, 278/N of No 1771 Squadron, HMS Implacable, June 1945, Caroline Islands

Temperate Sea Scheme with Sky under surfaces, its original ETO national markings were overpainted and British Pacific Fleet markings applied above the port and below the starboard mainplanes and on either side of the fuselage. The fin markings were painted out in matching camouflage colours and the propeller spinner was black. The original serial number was obscured by the BPF markings and reapplied on the rear fuselage under the tailplanes - minus the ROYAL NAVY legend



Firefly FR Mk I, serial unknown, 281/N of No 1771 Squadron, HMS Implacable, July 1945

Temperate Sea Scheme with Sky under surfaces, its original ETO national markings were overpainted and British Pacific Fleet markings applied above the port and below the starboard mainplanes and on either side of the fuselage. The fin markings were painted out in matching camouflage colours and the propeller spinner was black. The serial number and ROYAL NAVY legend were obscured by the BPF markings and not reapplied - a regular occurrence on Fireflies. Note the positioning of the individual aircraft number '281' compared to the more usual positioning on aircraft '278' above.



Firefly FR Mk I, DV124, 274/S of No 1772 Squadron, HMS Indefatigable, July 1945, off Japanese mainland

Temperate Sea Scheme with Sky under surfaces, with its original ETO national markings overpainted and British Pacific Fleet markings applied above the port and below the starboard mainplanes and on either side of the fuselage. The fin markings were painted out in matching camouflage colours and the propeller spinner was black.

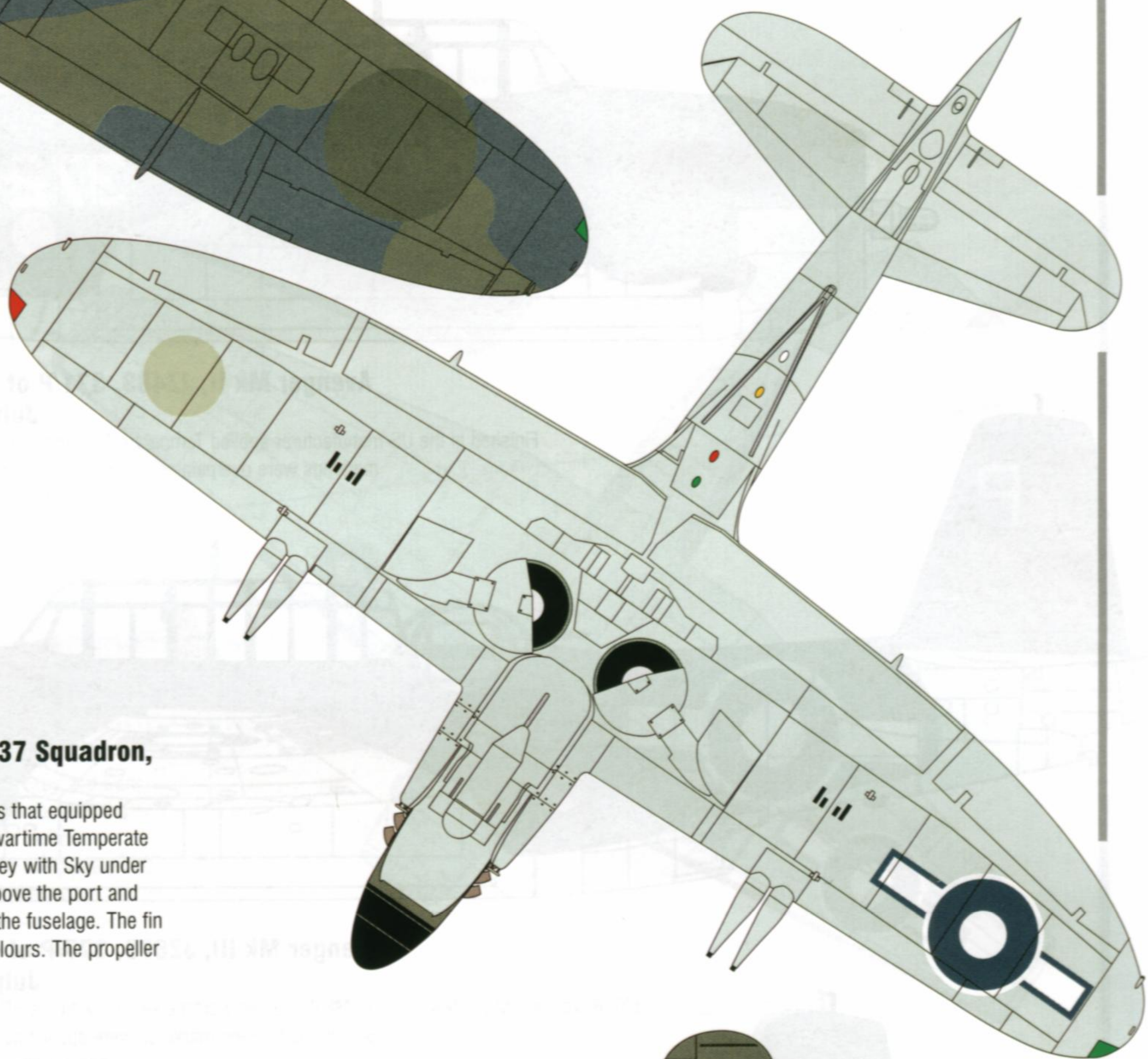
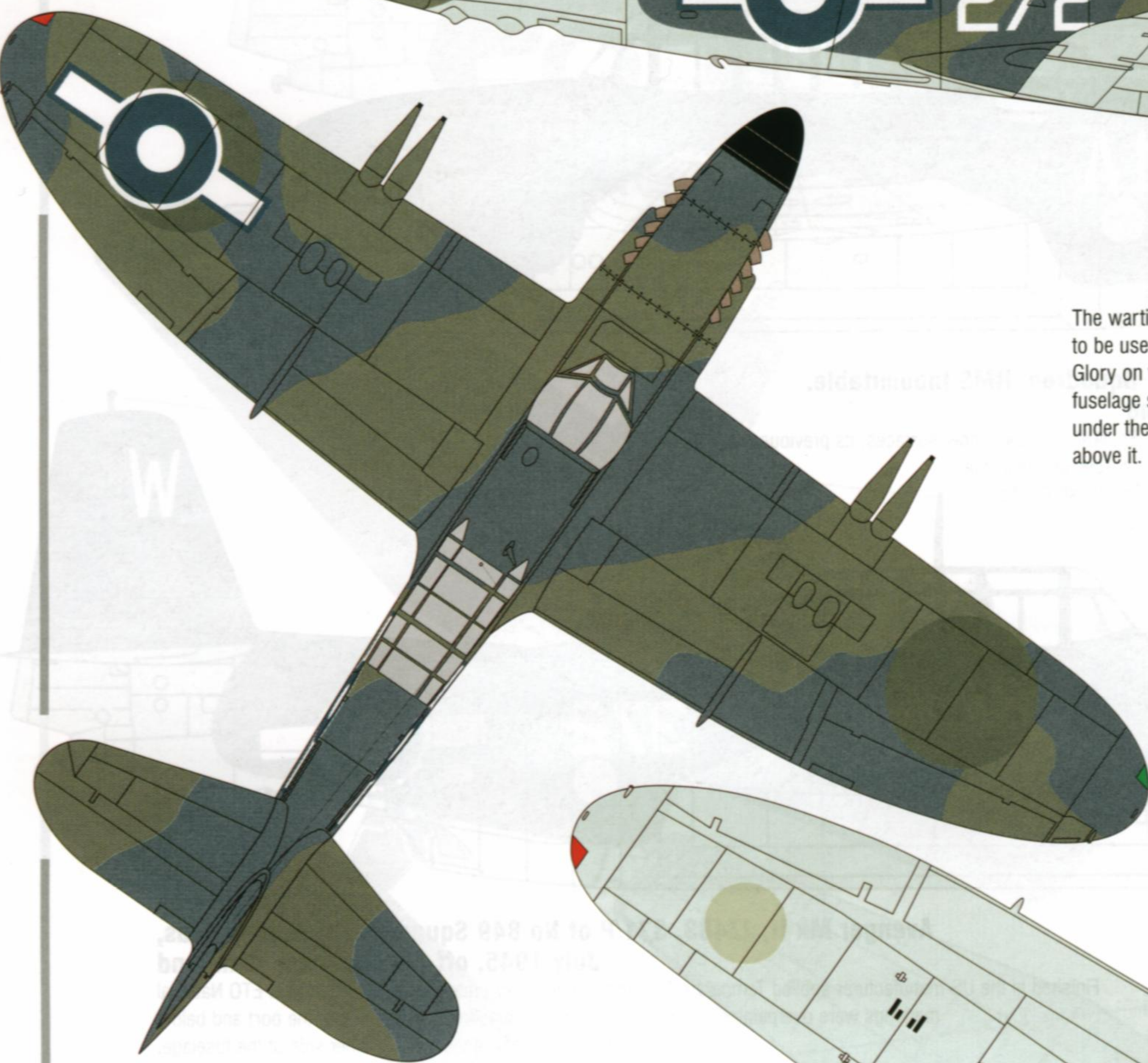


Firefly FR Mk I, DV117, '286' of No 814 Squadron, Nowra, Australia, December 1945,

Previously equipped with Barracudas, No 814 NAS re-equipped with Fireflies in late 1945. Finished in the Temperate Sea Scheme with Sky under surfaces, DV117 still sported wartime British Pacific Fleet markings well into 1946. Note the white spinner and white lightning flash on the nose.

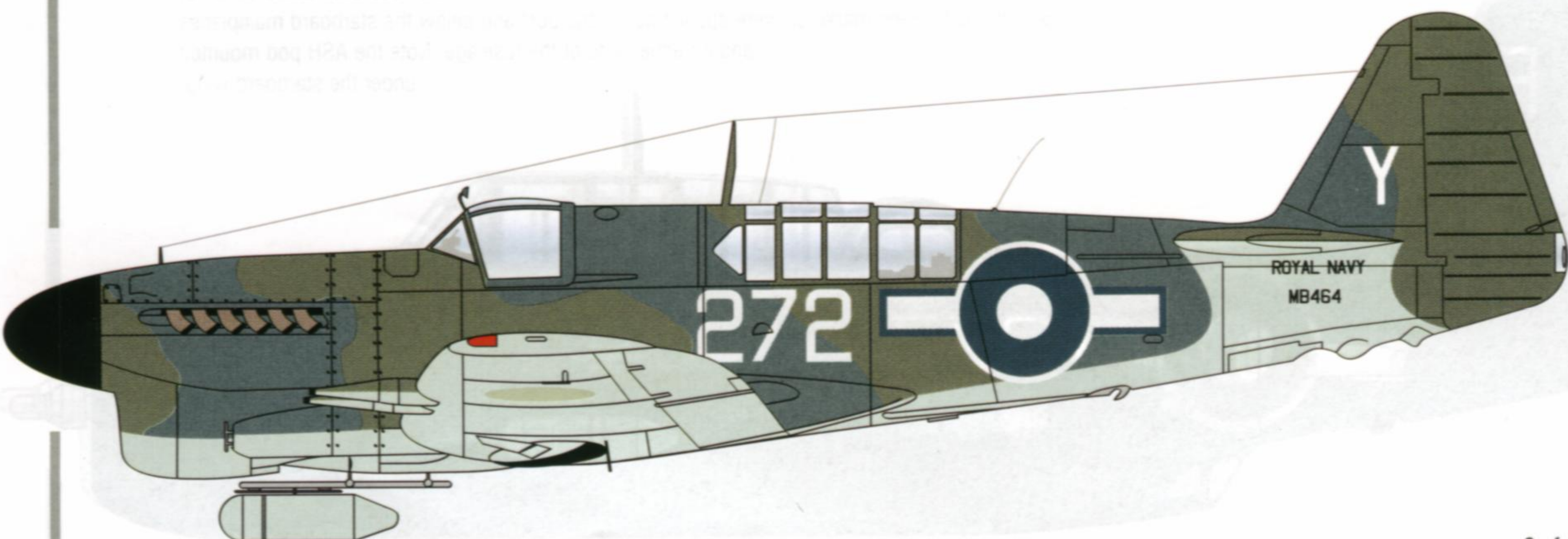


The wartime British Pacific Fleet Codes presentation continued to be used for some time after hostilities - the letter Y for HMS Glory on the fin and the individual aircraft number, '272', on the fuselage sides. Note the serial number had been reapplied under the tailplanes together with the ROYAL NAVY legend above it.



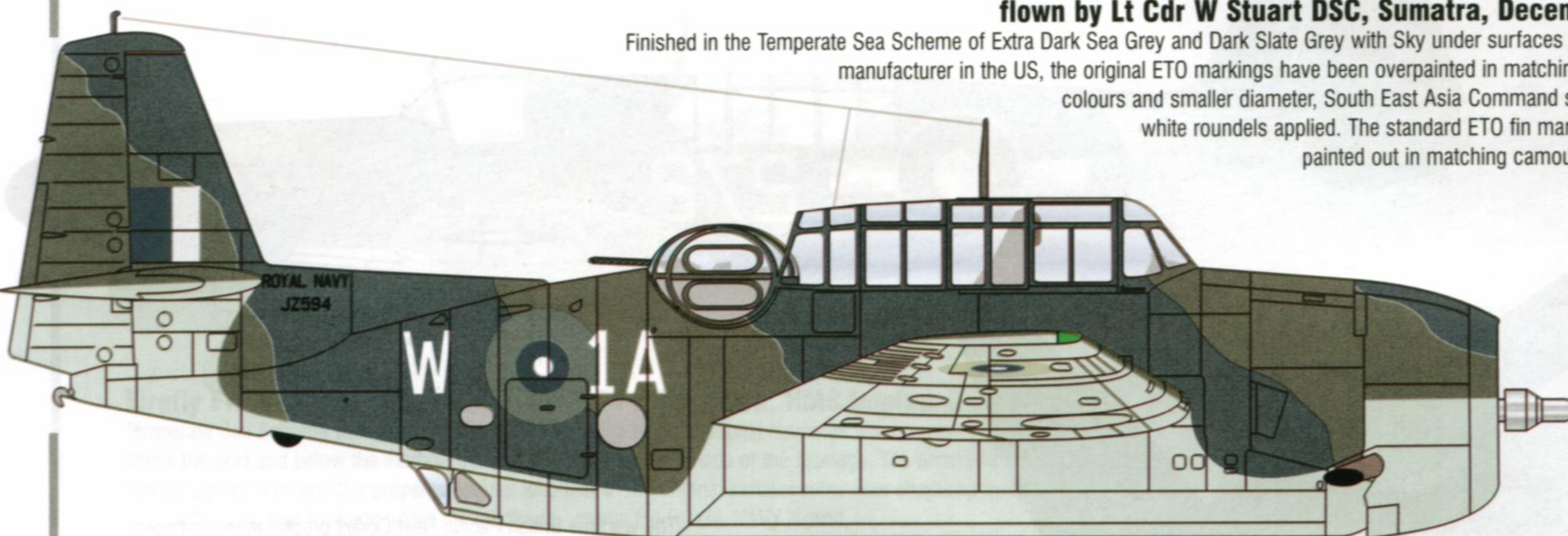
Firefly FR Mk I, MB464, 272/Y of No 837 Squadron, HMS Glory, January 1946

Typical of the late war and immediate post-war Fireflies that equipped Naval Air Squadrons, MB464 was still finished in the wartime Temperate Sea Scheme of Extra Dark Sea Grey and Dark Slate Grey with Sky under surfaces, with British Pacific Fleet markings applied above the port and below the starboard mainplanes and on either side of the fuselage. The fin markings were painted out in matching camouflage colours. The propeller spinner was black.



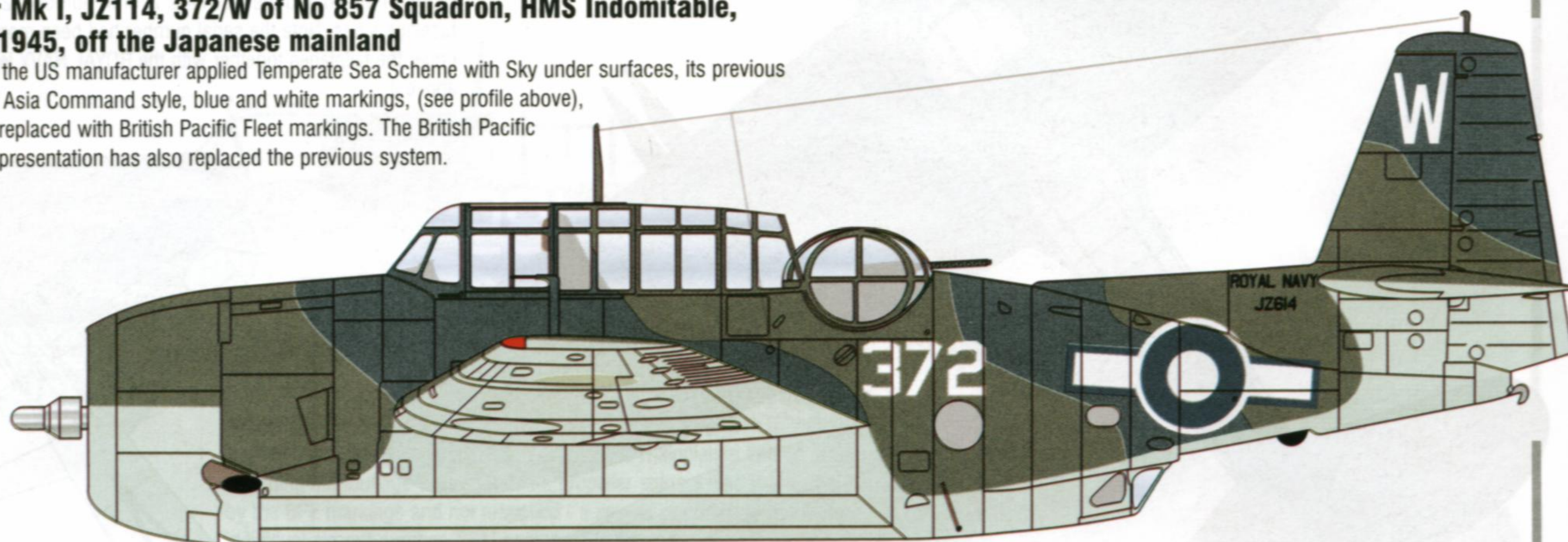
Avenger Mk II, JZ594, W1-A of No 857 Squadron, HMS Indomitable, flown by Lt Cdr W Stuart DSC, Sumatra, December 1944

Finished in the Temperate Sea Scheme of Extra Dark Sea Grey and Dark Slate Grey with Sky under surfaces applied by the manufacturer in the US, the original ETO markings have been overpainted in matching camouflage colours and smaller diameter, South East Asia Command style, blue and white roundels applied. The standard ETO fin marking was also painted out in matching camouflage colours.



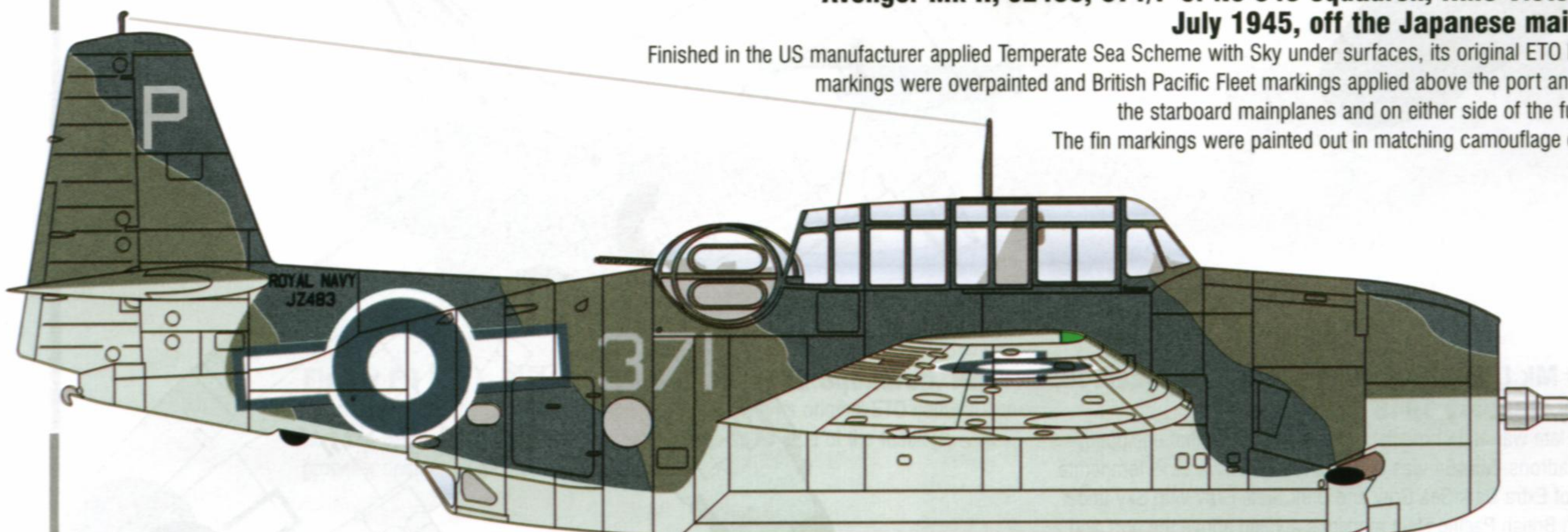
Avenger Mk I, JZ114, 372/W of No 857 Squadron, HMS Indomitable, August 1945, off the Japanese mainland

Finished in the US manufacturer applied Temperate Sea Scheme with Sky under surfaces, its previous South East Asia Command style, blue and white markings, (see profile above), have been replaced with British Pacific Fleet markings. The British Pacific Fleet code presentation has also replaced the previous system.



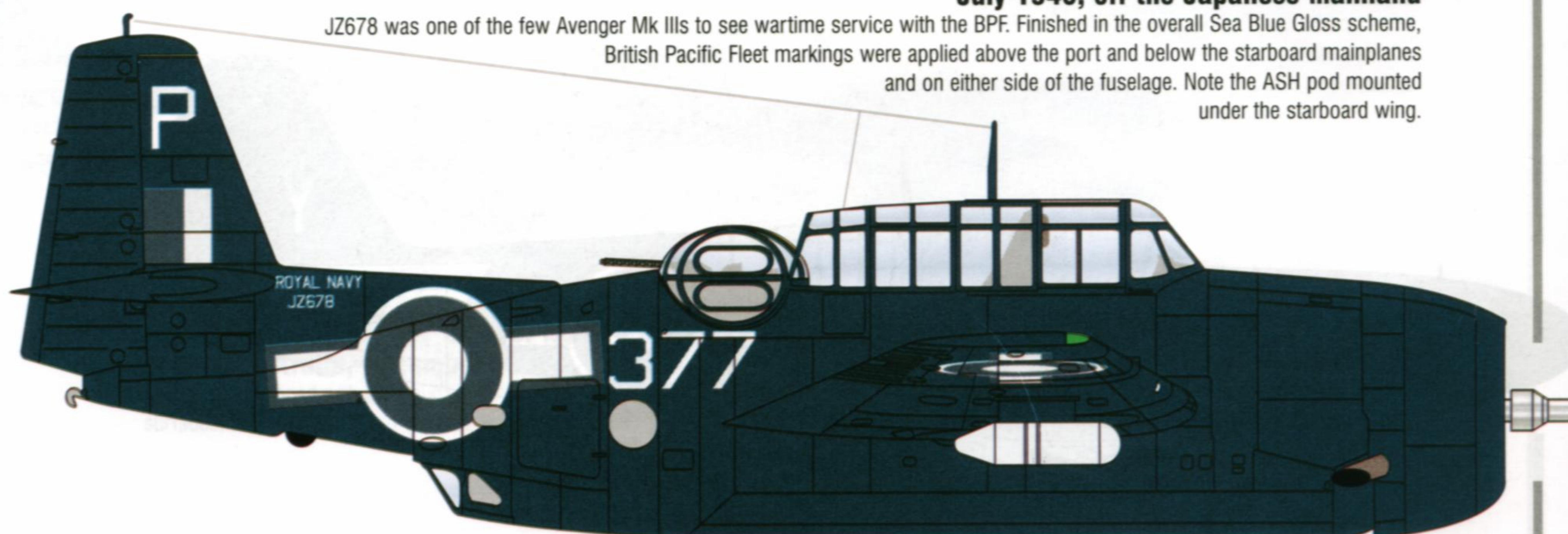
Avenger Mk II, JZ483, 371/P of No 849 Squadron, HMS Victorious, July 1945, off the Japanese mainland

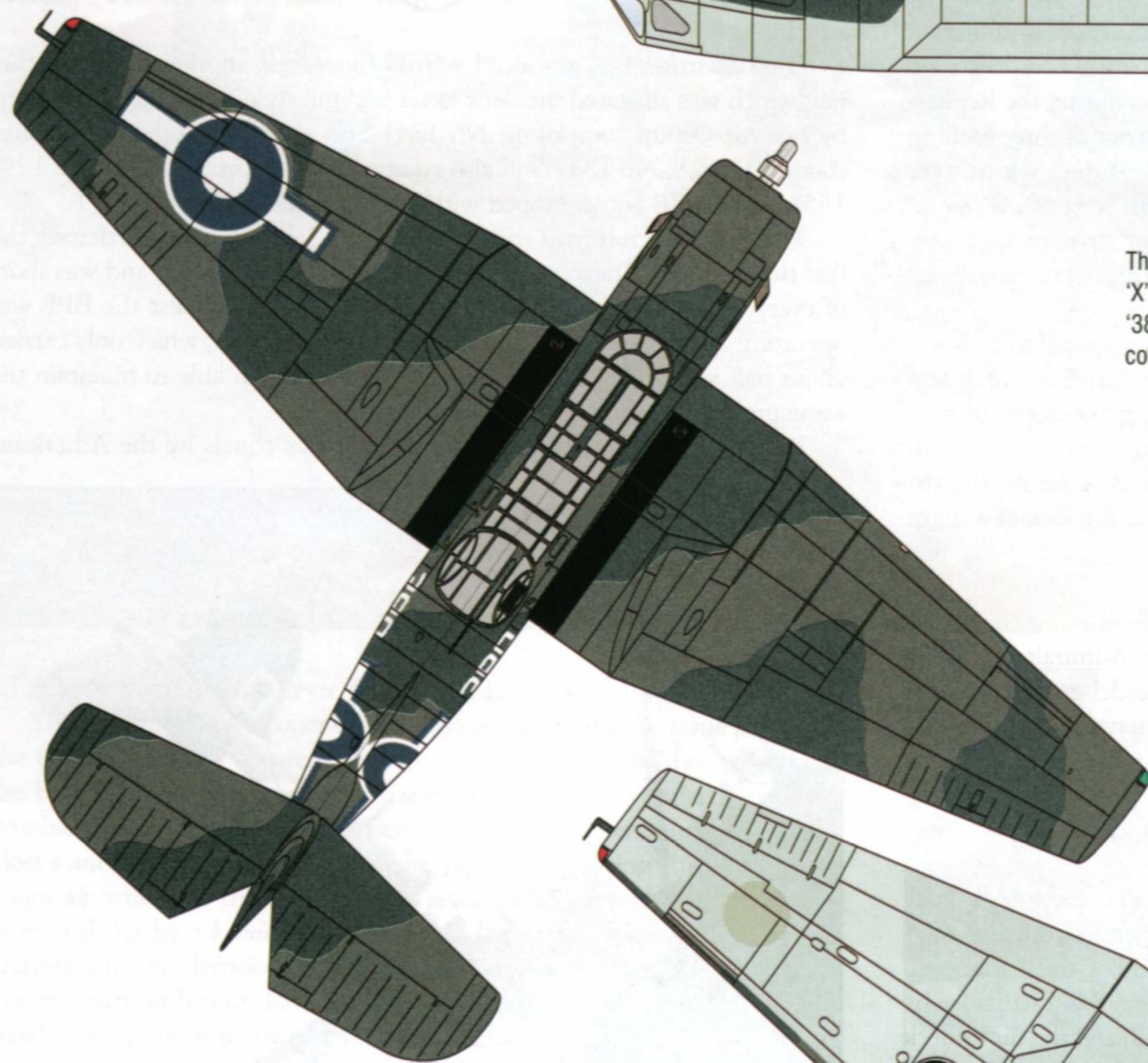
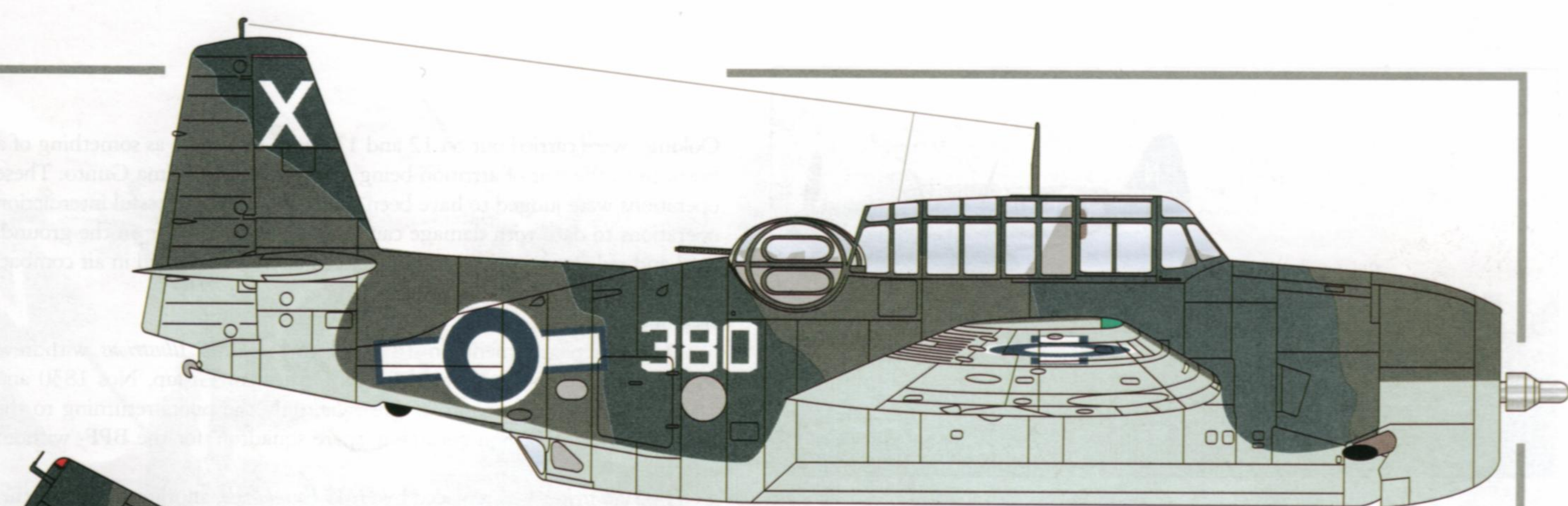
Finished in the US manufacturer applied Temperate Sea Scheme with Sky under surfaces, its original ETO National markings were overpainted and British Pacific Fleet markings applied above the port and below the starboard mainplanes and on either side of the fuselage. The fin markings were painted out in matching camouflage colours.



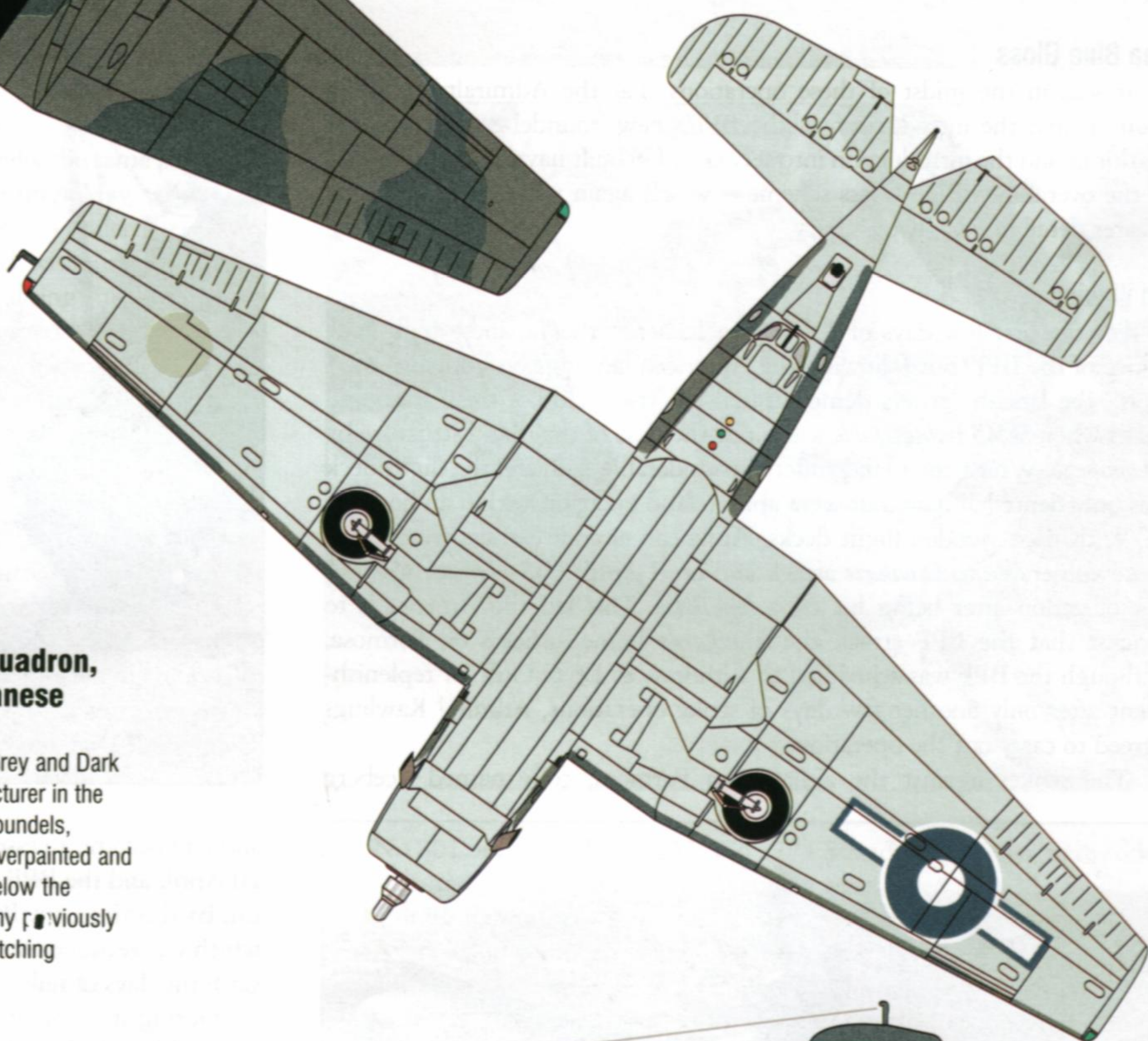
Avenger Mk III, JZ678, 377/P of No 849 Squadron, HMS Victorious, July 1945, off the Japanese mainland

JZ678 was one of the few Avenger Mk IIIs to see wartime service with the BPF. Finished in the overall Sea Blue Gloss scheme, British Pacific Fleet markings were applied above the port and below the starboard mainplanes and on either side of the fuselage. Note the ASH pod mounted under the starboard wing.



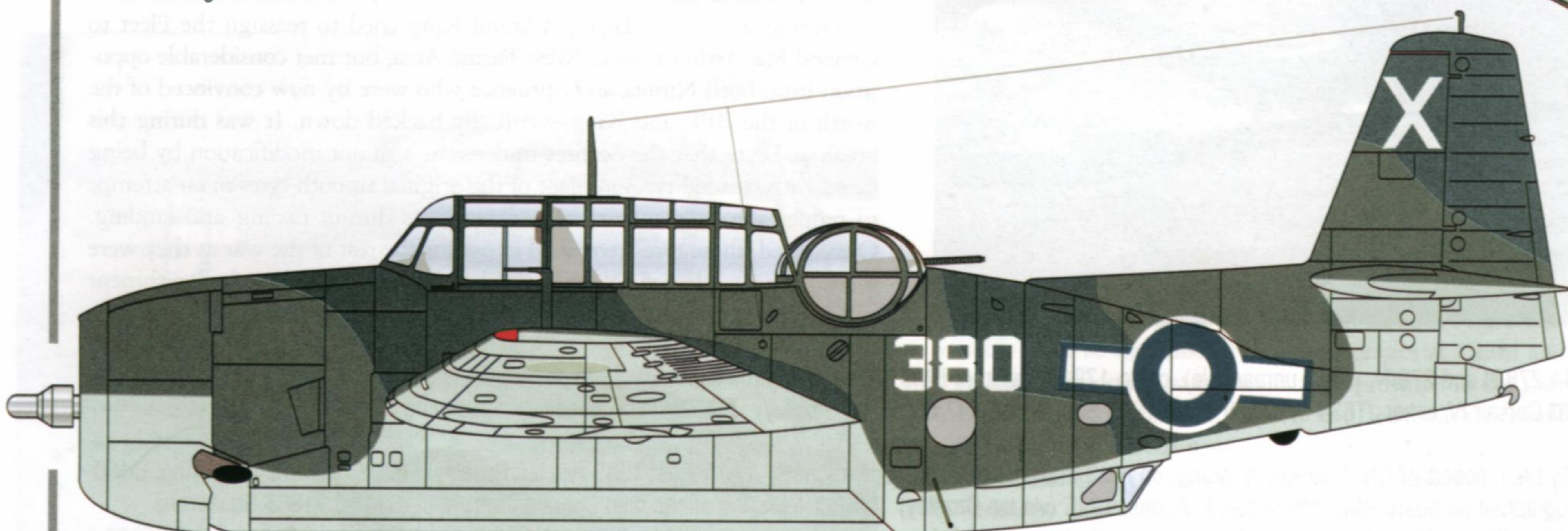


The British Pacific Fleet Codes presentation identifies the letter 'X' for HMS Formidable and the individual aircraft number, '380'. Note the upper/under camouflage demarcation on the cowling.



Avenger Mk I, JZ466, 380/X of No 848 Squadron, HMS Formidable, June 1945, off the Japanese mainland

Finished in the Temperate Sea Scheme of Extra Dark Sea Grey and Dark Slate Grey with Sky under surfaces applied by the manufacturer in the US. The South East Asia Command style, blue and white roundels, modified from the original ETO style markings have been overpainted and British Pacific Fleet markings applied above the port and below the starboard mainplanes and on either side of the fuselage. Any previously applied symmetrical markings have been painted out in matching camouflage colours.





by replacements transferred from replenishment carriers during the Replenishment At Sea (RAS) periods which were carried out in one of three fuelling rendezvous areas code named 'Mosquito', 'Cootie' and 'Midge', which were anything up to approximately 500 miles south or south west of the operational area. During these RAS periods, the Fleet carrier aircrews were able to rest as the defensive fighter and anti submarine patrols were carried out by aircraft from the escort carrier *HMS Speaker*.

Despite the effort put into these attacks, the airfields proved to be unrewarding targets as the runways were constructed from crushed coral, and although the bombing rendered them unusable during the hours of daylight, at night the Japanese were able to fill the bomb craters in the runways and operate aircraft under the cover of darkness. As a result, the airfields had to be bombed again the next day. Therefore, the lack of a night capability was keenly felt.

Sea Blue Gloss

It was in the midst of these operations that the Admiralty officially promulgated the introduction of the BPF's new 'roundel & bar' national markings and the introduction into service of US built naval aircraft finished in the overall Sea Blue Gloss scheme – which again will be dealt with in greater detail in Part Two.

An ill wind

For the first few days of 'Operation Iceberg', the Japanese took little notice of the BPF, but following the American landings on Okinawa on 1 April, the British carriers demonstrated the true value of their armoured decks when *HMS Indefatigable* was hit at the base of the island structure by a *kamikaze*. Whilst the island suffered considerable damage, the flight deck was only dented and aircraft were able to land on again within an hour.

With their wooden flight decks, American aircraft carriers were much more vulnerable to *kamikaze* attack and on 8 April, *USS Hancock* was put out of action after being hit by a *kamikaze*. This led the Americans to request that the BPF attack the *kamikaze*'s home airfields on Formosa. Although the BPF was scheduled to withdraw to Leyte Gulf for replenishment after only another few days of strike operations, Admiral Rawlings agreed to carry out the operations.

The strikes against the airfields on Formosa, code named 'Iceberg



Oolong', were carried out on 12 and 13 April, and came as something of a break from the war of attrition being waged over Sakishima Gunto. These operations were judged to have been the BPF's most successful interdiction operations to date with damage caused to airfields, aircraft on the ground, road and rail transport and at least sixteen aircraft destroyed in air combat.

Replacements

During replenishment on 14 April 1945, *HMS Illustrious* withdrew, leaving the BPF to return to the UK. Of her Air Group, Nos 1830 and 1833 Sqns left their aircraft in Australia, only the pilots returning to the UK, whilst No 854 Sqn became a 'spare squadron' for the BPF- without aircraft.

HMS Illustrious was replaced by *HMS Formidable*, another armoured carrier, which was allocated the deck letter and tail code 'X' which was carried by her Air Group comprising No 1841 Sqn equipped with Corsairs and coded 111-128, No 1842 Sqn also equipped with Corsairs and coded 129-145 and No 848 Sqn equipped with Avengers and coded 370-391.

The BPF then returned to operations over Sakishima Gunto despite the fact that the Fleet Train carried no more replacement aircraft and was short of everything as a whole. This was necessary because whilst the BPF was operating against Formosa, the American escort carriers, which only carried about half as many aircraft as the BPF, had not been able to maintain the same pressure on the airfields.

By this stage, the BPF had been accepted as equals by the Americans



and had become an essential part of 'the team'. Operations finally ceased on 20 April, and the BPF withdrew to San Pedro Bay at Leyte Gulf to replenish. By this time, the BPF had been at sea on operations for thirty-two days which was reckoned to be the longest sortie undertaken by any British Fleet since the days of sail.

During its time at Leyte, Admiral King tried to reassign the Fleet to General MacArthur's South West Pacific Area, but met considerable opposition from both Nimitz and Spruance who were by now convinced of the worth of the BPF, and King eventually backed down. It was during this break at Leyte that the Seafires underwent a minor modification by being fitted with treaded tyres in place of the original smooth tyres in an attempt to reduce the frequency of minor accidents during taxiing and landing. Once fitted, these tyres remained in use for the rest of the war as they were found to have a beneficial effect on the accident rate. Once replenishment was complete, the BPF returned to the Sakishima Gunto for a further peri-

TOP Firefly MB444 278/N and 279/N, (serial unreadable), of No 1791 Squadron, HMS Implacable, circa June/July 1945. MB444 was lost on 24 July 1945 (Crown copyright) **MIDDLE** Corsair IV, either JT634 or JT676 of No 1833 Sqn, coded 147/Q (via Ian Gazeley) **BOTTOM** Unidentified Corsair landing on HMS Illustrious. (via Ian Gazeley)

OPPOSITE TOP Firefly Mk I, coded 277/N, following a 'prang' on HMS Implacable, during operations in July/August 1945 (via Ian Gazeley) **MIDDLE** Commander Flying, Cdr C L G Evans, photographed on board HMS Implacable in August 1945 (via Ian Gazeley) **BOTTOM** HMS Victorious with Corsairs from Nos 1834 and 1836 Squadrons ranged on her flight deck, photographed whilst entering Sydney Harbour on 11 February 1945. The nearest aircraft, from No 1836 Squadron, looks to be coded '8S' on gear cover? (via Ian Gazeley)



od of operations, leaving Leyte Gulf on 1 May 1945.

This second period of operations followed essentially the same pattern as the first, although it was marred by a tactical error on 4 May, when both the BPF's battleships and all its cruisers were detailed to undertake a shore bombardment. This left the carriers badly exposed without most of the Fleet's anti-aircraft gun cover, and the Japanese, realising this, mounted a major air attack on the carriers. As a result *HMS Victorious* and *Formidable* were both hit by a *kamikaze*, whilst *HMS Indomitable* had two near misses. Despite a further ferocious *kamikaze* attack in the evening of 8 May, which saw two further hits on *Victorious* and one on *Formidable*, the Japanese were steadily being ground down, and on the 11 May, the BPF was informed that it would no longer be required after 25 May and would be able to withdraw to Sydney for a short rest.

During this break, *HMS Indomitable* could be refitted in preparation for 'Operation Olympic', the invasion of mainland Japan which was scheduled to take place in November 1945. Accordingly, the Fleet withdrew on 25 May, having lost twenty-six aircraft to *flak* and seventy-two operationally. The total loss from all causes however was 203, or 93% of the Fleet's total complement of 218 aircraft, a loss rate which would have even given Bomber Command pause for thought!



'Operation Inmate'

Whilst the BPF was engaged in its second period of operations off Sakishima Gunto, *HMS Implacable* arrived in Sydney on 8 May, and had reached Manus by the 29th. *HMS Implacable* was allocated the deck letter and tail code 'N' which was applied to the Seafires of No 880 Sqn, coded 111-122,

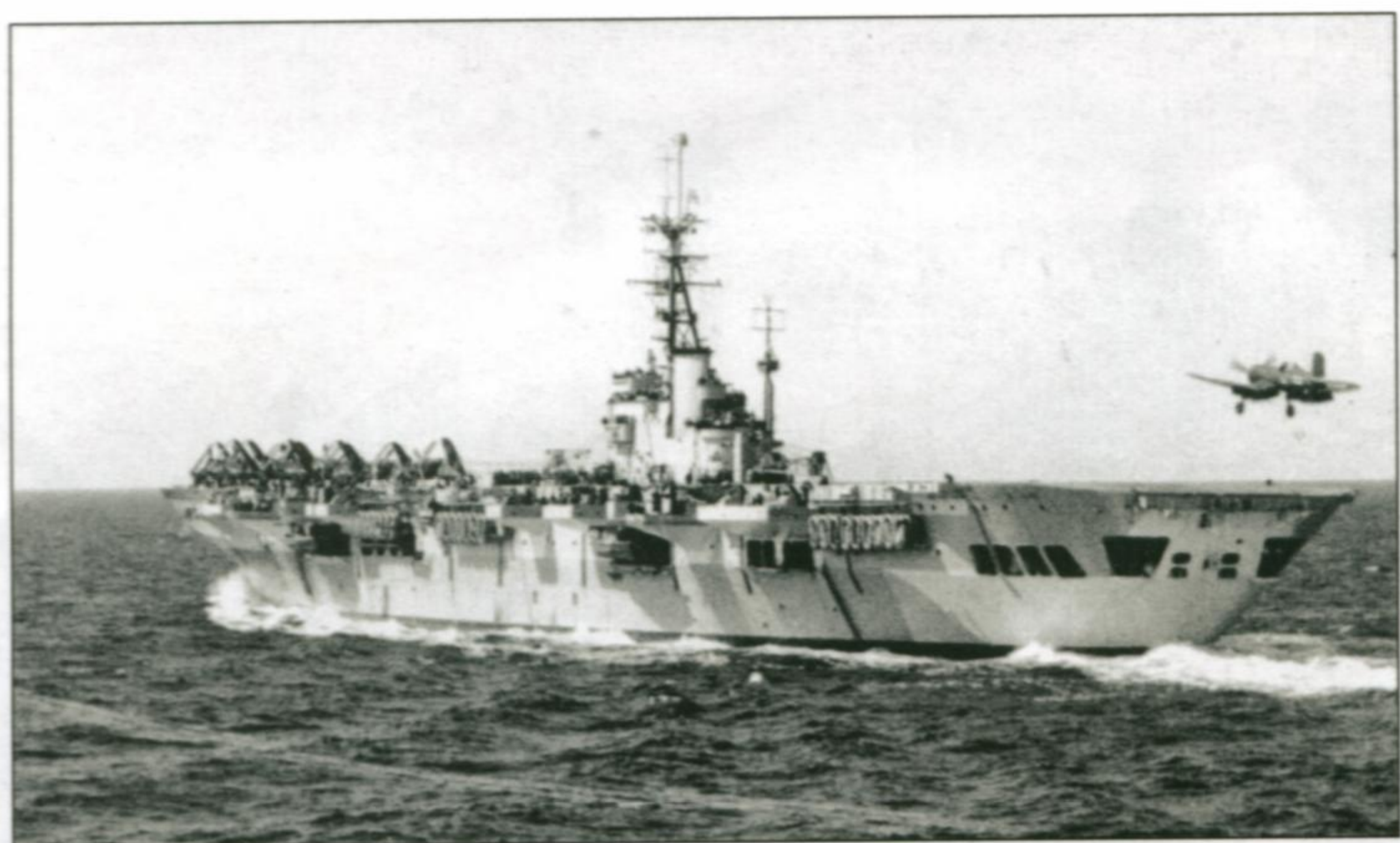


and No 801 Sqn, coded 123-151; No 1771 Squadron's Fireflies were coded 270-281 and No 828 Squadron's Avengers were coded 370-381.

In order to work the ship and its Air Group up to the same high level of efficiency and combat readiness as the rest of the Fleet, *HMS Implacable* sailed from Manus on 24 June for 'Operation Inmate', a series of air strikes conducted on Truk atoll in the Caroline Islands. Designated Task Group 111.2, *HMS Implacable* was accompanied by four cruisers, *HMS Newfoundland*, *Swiftsure*, *Achilles* and *Uganda*; five destroyers of the 24th Destroyer Flotilla, *HMS Troubridge*, *Teazer*, *Tenacious*, *Termagant* and *Terpischore* and the escort carrier *HMS Ruler* which was to act as a spare deck for *Implacable*'s aircraft as well as having a Walrus embarked for Air Sea Rescue duties.

Truk had been heavily fortified by the Japanese between the wars to serve as a major operational and supply base. Outflanked and bypassed by the American island hopping campaign, Truk's importance had diminished by this stage of the war, but it was still an active base which was uncomfortably close to the Allied Fleet's anchorages at Ulithi and Guam. It was considered important to maintain some pressure on the garrison in order to make them keep their 'heads down' and Truk was therefore thought a suitable target to work the new carrier up to operational efficiency.

Task Group 111.2 arrived in position approximately 85 miles south west of Truk by dawn on 14 June 1945, and launched the first mission of the day at 0540 hrs. During this operation one Seafire was shot down by anti-aircraft fire, but this was the only aircraft to be lost to enemy action. Later



during the day further strikes were flown by Avengers and rocket-firing Fireflies – even some dive bombing sorties were flown by Seafires.

On the following day, the two carriers were left with a screen of just two destroyers as the rest of the Task Group closed inshore in three small groups to carry out a bombardment. Each group was accompanied by a pair of Seafires from *HMS Implacable* whose pilots had been trained as spotters. *HMS Newfoundland* was accompanied by *HMS Troubridge* in a bombardment of coastal batteries but switched targets to Eten airfield when no enemy response was forthcoming. *HMS Achilles* and *Uganda* accompanied by *HMS Tenacious* set out to bombard the seaplane base at Dublon but were handicapped by a series of problems with the signalling and achieved very little. *HMS Swiftsure* was accompanied by *HMS Teazer* and attempted to bombard various coastal defences but suffered from a mechanical fault in the fire control table, a kind of mechanical computer which was used to work out the firing solutions for the guns. When the main armament proved unable to engage, *HMS Swiftsure* closed to the coast to engage targets with her secondary armament, only to discover that the anti-aircraft shells with which the guns were loaded had radar proximity-fused shells

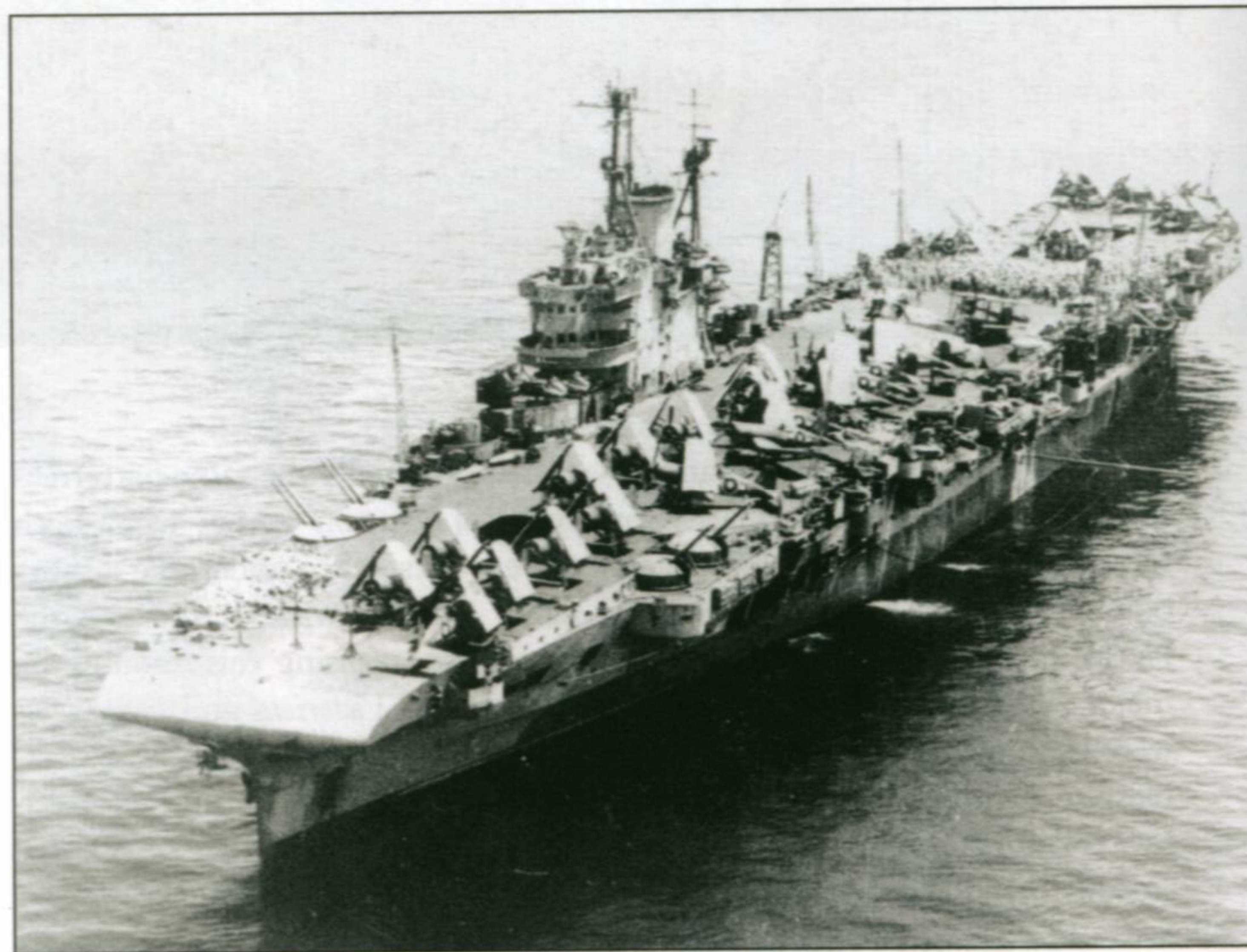


which were detonated by the palm trees along the shore line, preventing any major damage being done to the enemy!

Task Group 111.2 withdrew from the area at midnight on 15 June 1945, following a night attack on Truk's airfields by Avengers from *HMS Implacable* which then returned to Manus to await the arrival of the rest of the Fleet, fresh from its sojourn in Australia. During the two days of 'Operation Inmate', *HMS Implacable*'s aircraft had flown 216 sorties for the loss of one Seafire to anti-aircraft fire and three Avengers to engine failure. *HMS Ruler* had also lost her Walrus when it was blown overboard by a freak gust of wind during a line squall.

Seafire drop tanks

Whilst the Seafire squadrons from *HMS Implacable* and *Indefatigable* were ashore, during June 1945, the problem of the Seafire's short range was addressed. Between them, the two ships carried approximately eighty-eight Seafires which, because of their short range, had up until this point been employed solely on CAP sorties over the Fleet. Now however, the type formed almost one third of the Fleet's total aircraft strength as well as being its most numerous single type. For this reason it became essential that some means be found of extending the type's radius of action which would allow it to play a bigger part in the forthcoming operations against mainland Japan.



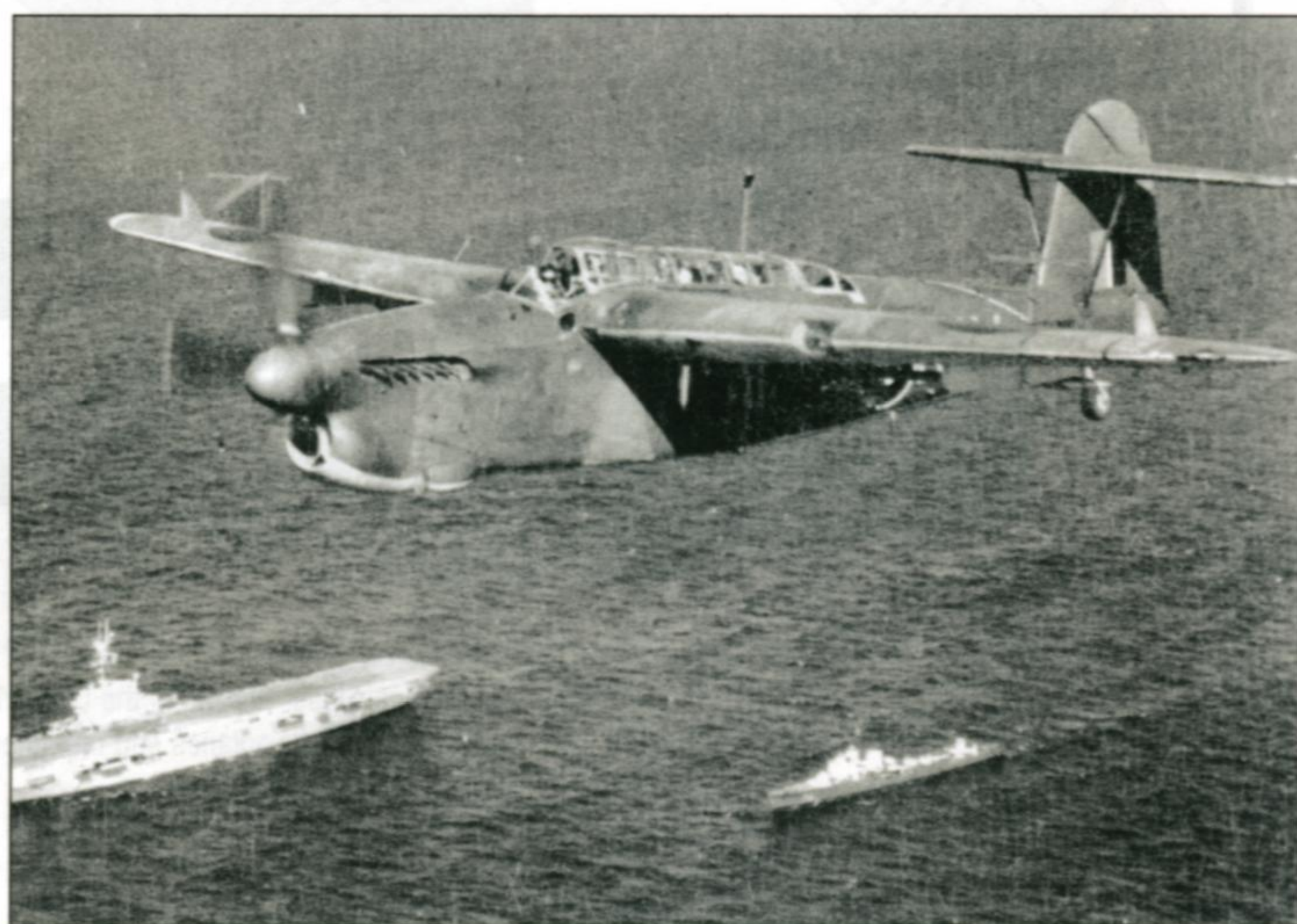
The two Air Groups came up with similar but slightly different solutions to this problem, both involving the use of external long range tanks. Nos 801 and 880 Sqns aboard *HMS Implacable* adopted 89 gallon 'P-40' drop tanks which were obtained from American/Australian Lend-Lease stores in New Guinea, (reportedly in exchange for a quantity of Whisky!); whilst Nos 887 and 894 Sqns aboard *HMS Implacable* obtained 90 gallon Spitfire slipper tanks from the RAAF whilst the carrier was in Sydney. Perversely, the Spitfire 90 gallon tanks proved to be less reliable in service than the P-40 'lash up' arrangement and even with either of these tanks fitted, the Seafire still did not have the radius of action of the Corsairs embarked on *Formidable* and *Victorious* which could still fly further – even when carrying a half-ton bomb load!

Whilst *HMS Indefatigable* was in Sydney, her Firefly squadron, No 1770, disembarked to become part of the 7th Carrier Air Group, although in fact the squadron did not embark on another carrier before the end of the war. No 1770 Sqn was replaced aboard *HMS Indefatigable* by another Firefly squadron, No 1772, who carried *Indefatigable*'s 'S' on the fin and the code range 270-281 on the sides of the fuselage.

HMS Indefatigable suffered a breakdown in some of her auxiliary machinery shortly before she was due to sail with the rest of the BPF, so she was forced to remain behind when *HMS Victorious* and *Formidable* sailed for

TOP Corsair Mk IV of No 1831 Sqn about to land on HMS Glory, photographed from HMS Implacable, circa early 1946. No 1831's Corsairs were coded 111/Y to 123/Y (via Ian Gazeley) **MIDDLE** Corsairs of Nos 1834 and 1836 Squadrons ranged on the deck of HMS Victorious. Note parent carrier code 'P' on the fins by this stage. The three-figure individual aircraft identification numbers were 111 to 128 for 1834 Sqn and 131 to 150 for 1836 Sqn (via Ian Gazeley) **BOTTOM** Seafires of Nos 801 and 880 Squadrons ranged on HMS Implacable's deck, leaving Sydney for Manila, 13 September 1945 (via Ian Gazeley)

OPPOSITE TOP No 801 Squadron Seafires, 113/N, 127/N and 117/N aboard HMS Implacable, circa January 1946. Note the mix of Mk IIIs and Mk XVs. The Mk XVs were subsequently discarded (via Ian Gazeley) **MID LEFT** Seafire Mk III, 147/N, of No 880 Sqn loses a propeller blade whilst landing on HMS Implacable, circa August 1945 (via Ian Gazeley) **MID RIGHT** Barracuda of No 814 Squadron over-flying HMS Venerable in late 1945 (via Neil Robinson) **BOTTOM** ASR Walrus on HMS Implacable's flight deck, possibly, Melbourne, Australia circa early 1946. Despite there being no reference to an ASR Walrus embarked in HMS Implacable, it is also visible parked on the forward deck of HMS Implacable in an aerial photo of Glory, Indefatigable and Implacable moored at Station Pier on 23 January 1946 (via Ian Gazeley)



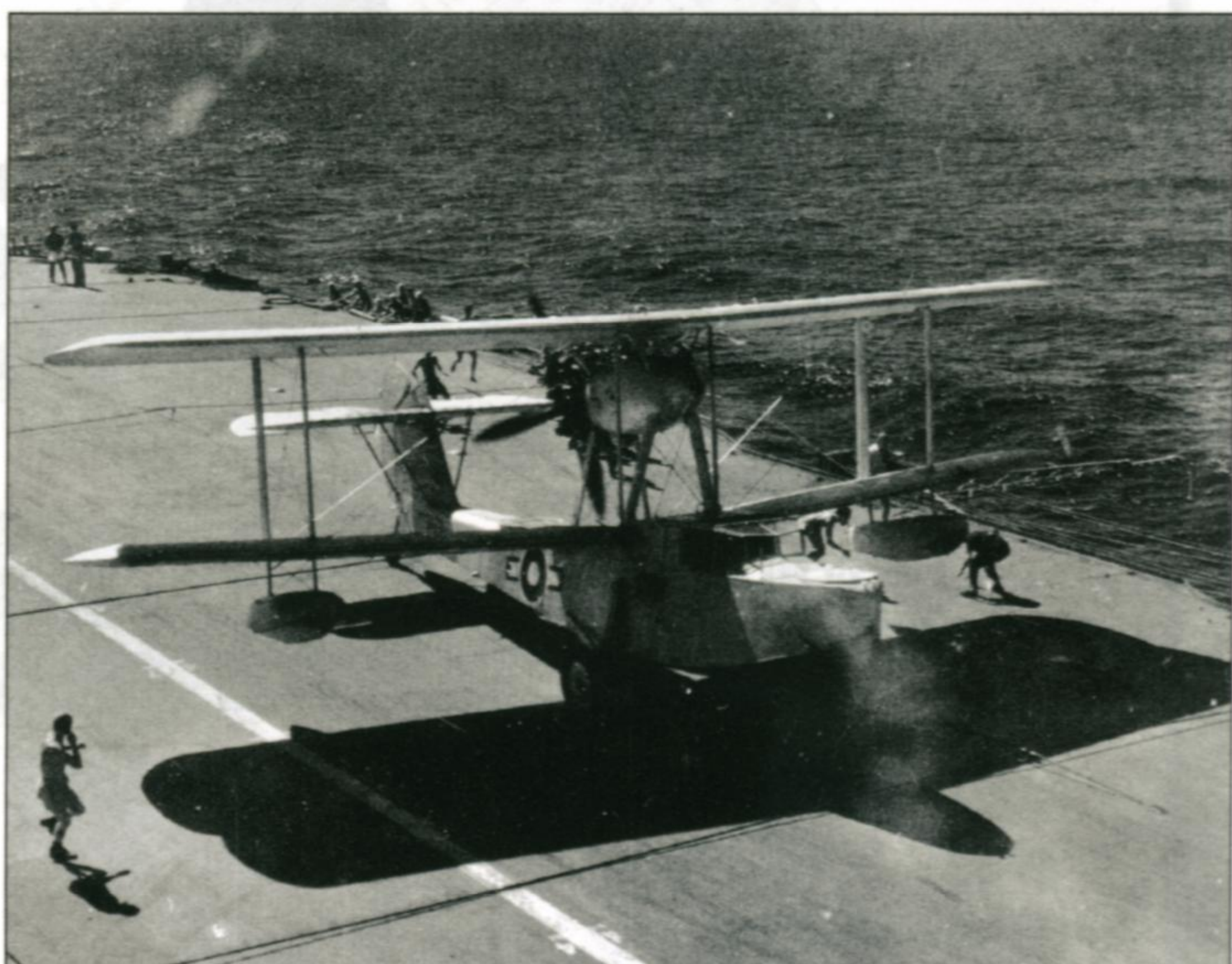
Manus on 28 June where they met *HMS Implacable*, which by this time had returned from 'Operation Inmate' against Truk.

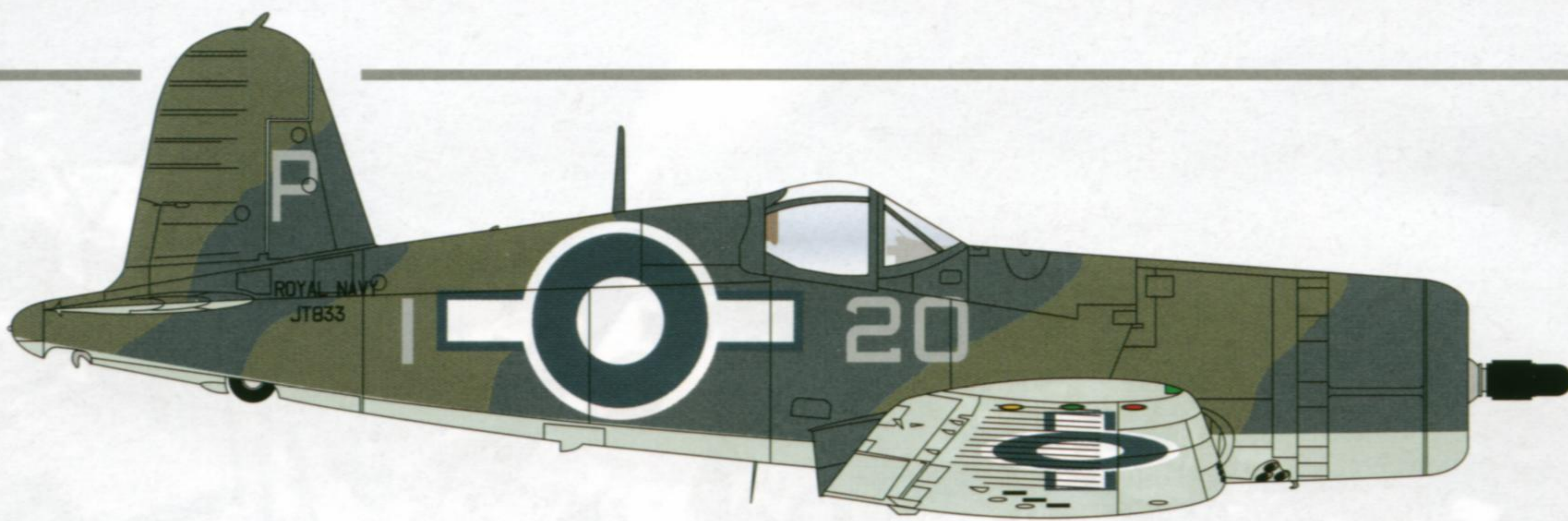
BPF operations phase three – Task Force 37

The third and final phase of the BPF's operational wartime career began on 6 July as the Fleet sailed from Manus towards its operational area off the coast of Japan. Designated Task Force 37, the BPF's carrier force consisted of *HMS Victorious*, *Formidable* and *Implacable*; with *HMS Indefatigable* still slightly delayed as a result of her machinery defect. The first three carriers began operations on 17 July, being joined by *Indefatigable* from the 19 July onwards.

The same operational cycle as had been used off Sakishima Gunto, consisting of two strike days followed by two Replenishment At Sea days, was employed once again. Targets attacked consisted of airfields, railway installations, shipping on the Inland Sea, shipyards, and harbours. On 24 July, six Avengers, two Corsairs and two Fireflies found and attacked the Japanese escort carrier *IJN Shimane Maru*, leaving her still afloat but on fire with her back broken. This proved to be the only occasion on which Royal Navy aircraft ever attacked an aircraft carrier.

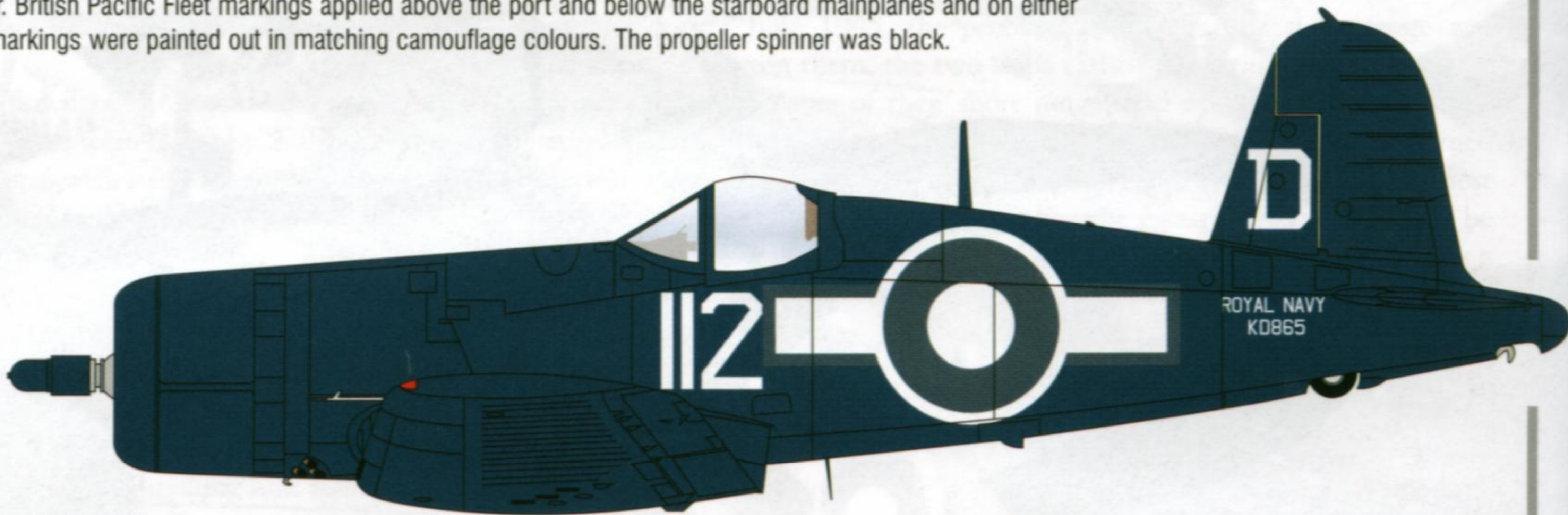
The BPF withdrew to replenish on 30 July, a process which was hindered by a succession of typhoons which caused some damage to the lighter decks of the American carriers and slowed refuelling. Ready for action once





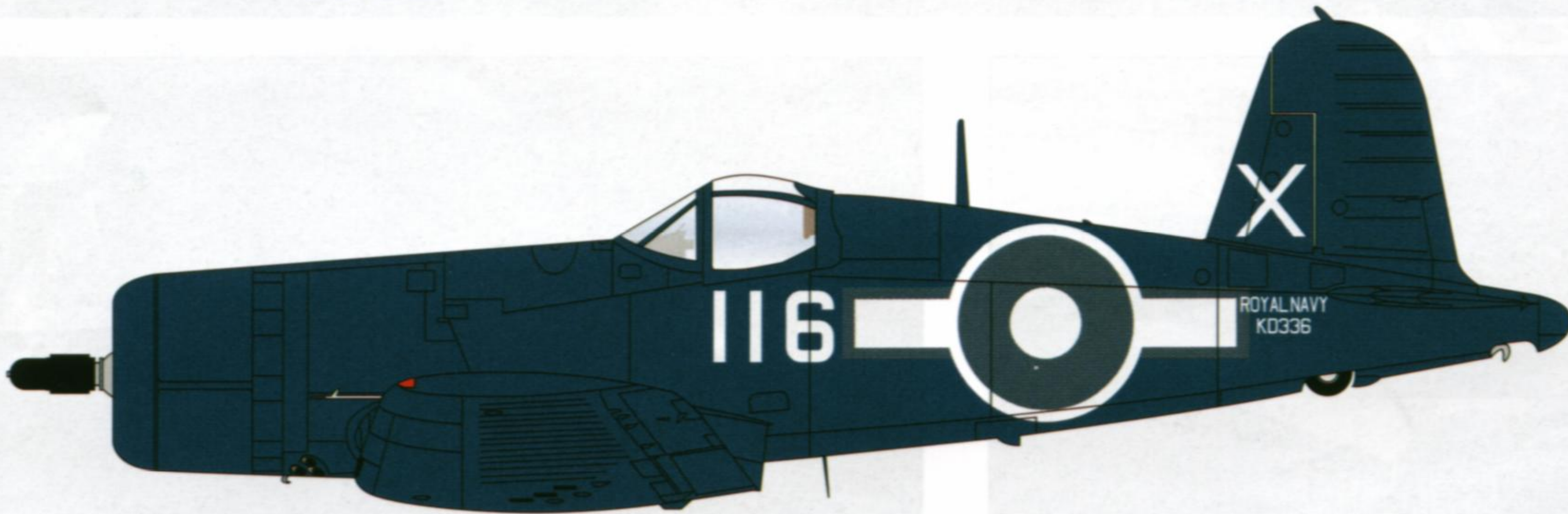
Corsair Mk II, JT533, 120/P of No 1834 Sqn, HMS Victorious, Sakishima Islands, February 1945

Finished in the Temperate Sea Scheme of Extra Dark Sea Grey and Dark Slate Grey with Sky under surfaces which was probably applied in the US during manufacturer. British Pacific Fleet markings applied above the port and below the starboard mainplanes and on either side of the fuselage. The fin markings were painted out in matching camouflage colours. The propeller spinner was black.



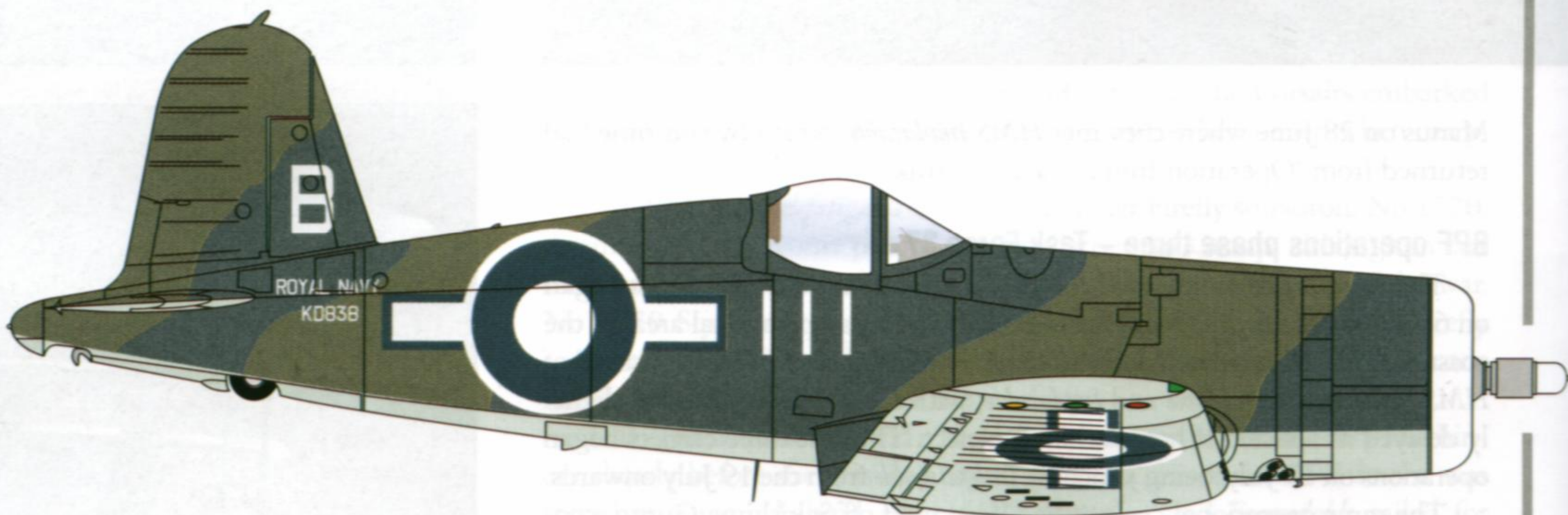
Corsair Mk IV, KD865, 112/D of No 1846 Sqn, HMS Colossus, June 1945

Overall Sea Blue Gloss, applied in the US during manufacturer, with British Pacific Fleet markings applied above the port and below the starboard mainplanes and on either side of the fuselage. The propeller spinner was black. Note the style of the letter 'D' on the fin.



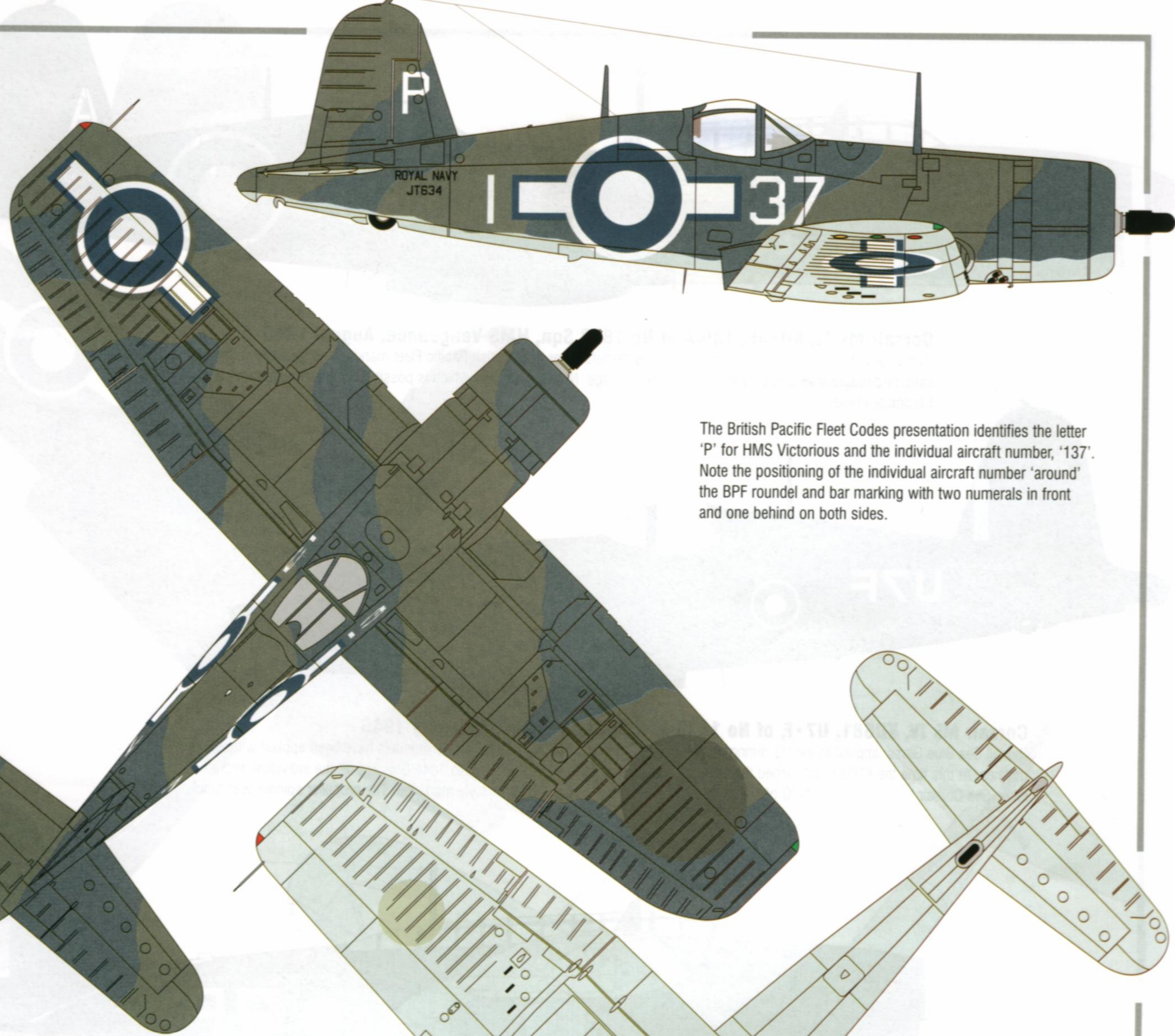
Corsair Mk IV, KD336, 116/X, of No 1841 Sqn, HMS Formidable, August 1945

Overall Sea Blue Gloss, applied in the US during manufacturer, with British Pacific Fleet markings applied above the port and below the starboard mainplanes and on either side of the fuselage. The propeller spinner was black.

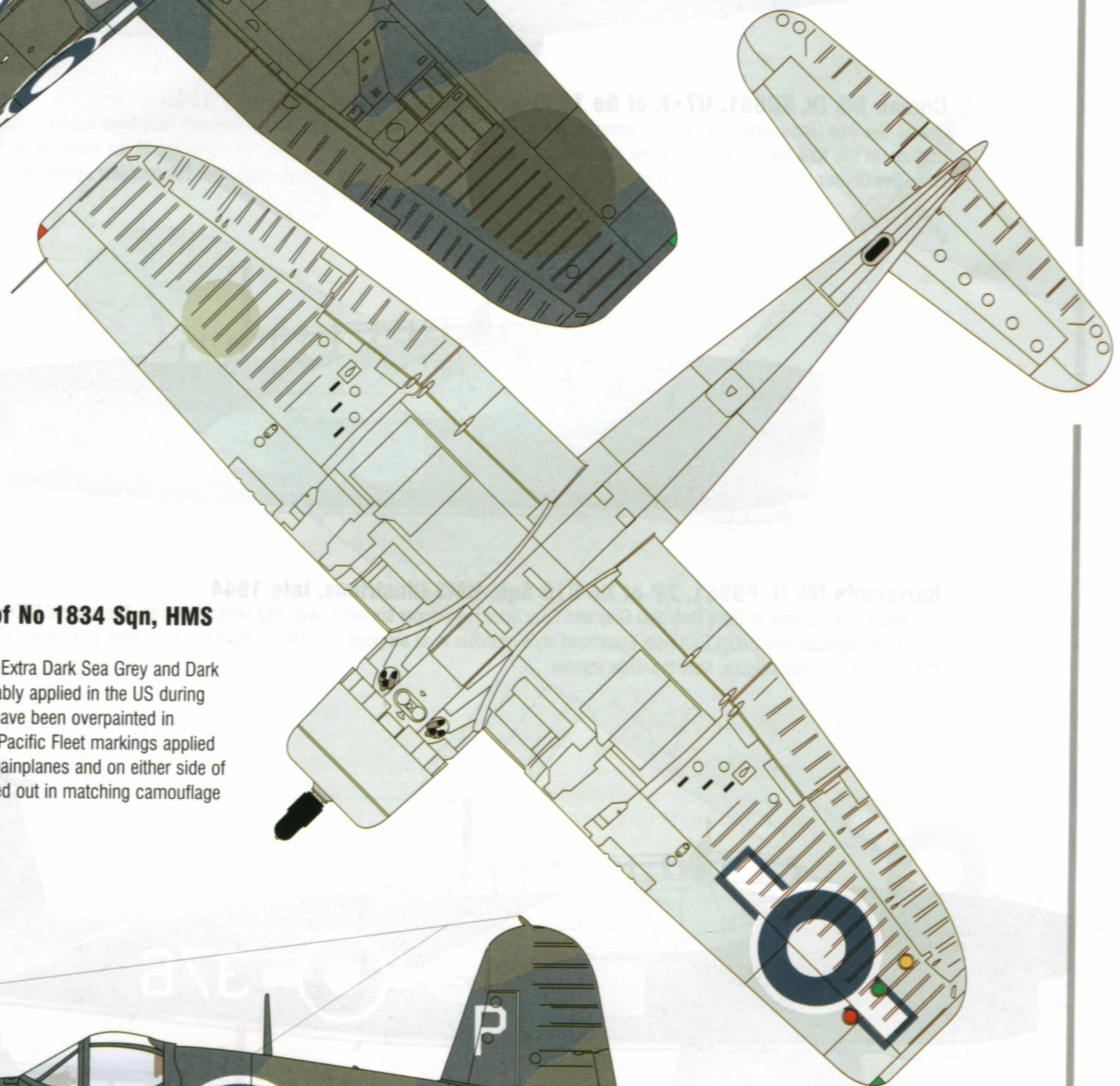


Corsair Mk IV, KD838, 111/B, of No 1851 Sqn, HMS Venerable, July/August 1945

Finished in the Temperate Sea Scheme with Sky under surfaces, probably applied in the US during manufacturer, British Pacific Fleet markings were carried above the port and below the starboard mainplanes and on either side of the fuselage. The fin markings were painted out in matching camouflage colours. Note the white cowling front.

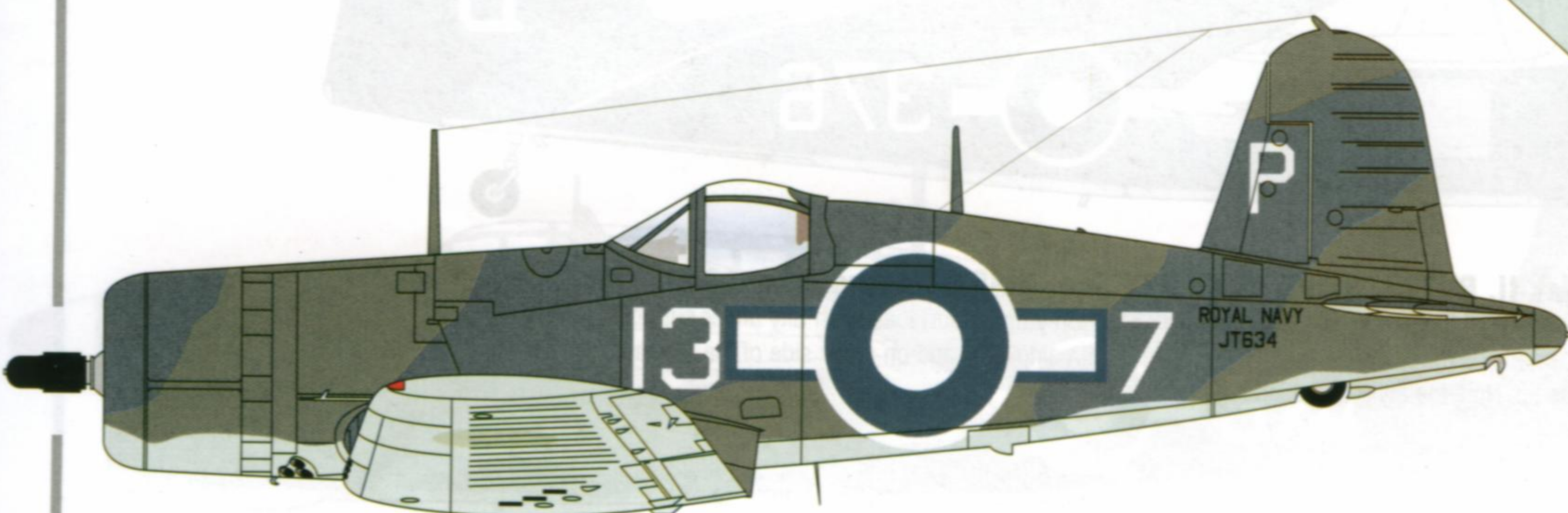


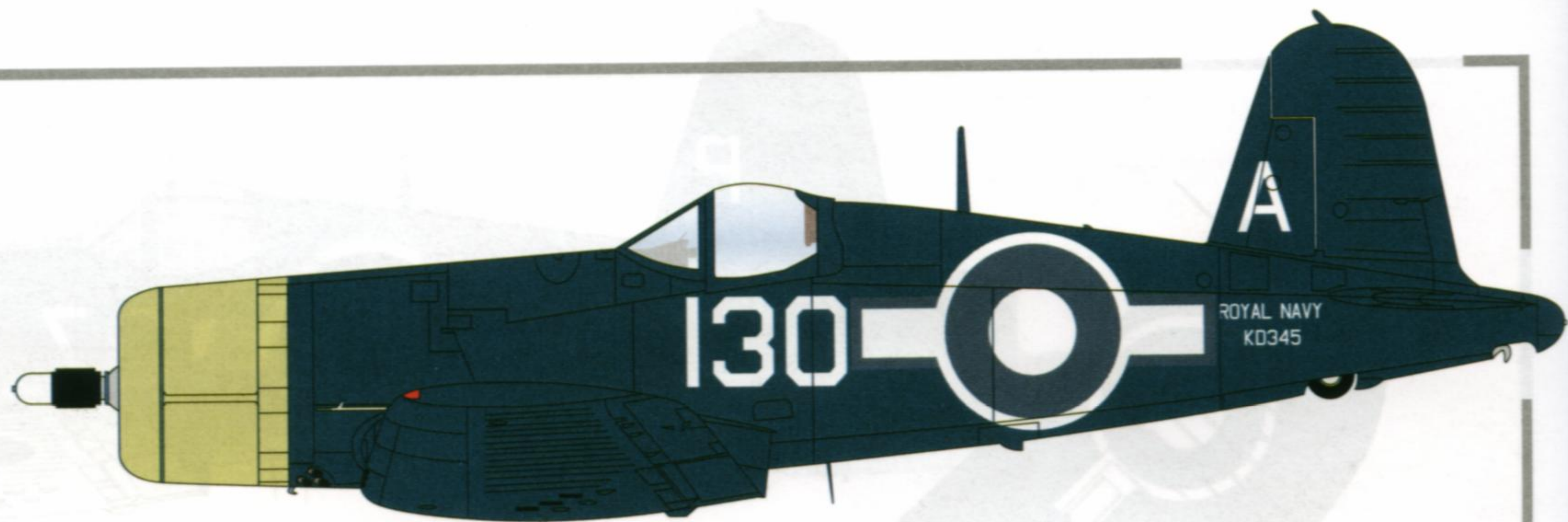
The British Pacific Fleet Codes presentation identifies the letter 'P' for HMS Victorious and the individual aircraft number, '137'. Note the positioning of the individual aircraft number 'around' the BPF roundel and bar marking with two numerals in front and one behind on both sides.



Corsair Mk II, JT634, 137/P, of No 1834 Sqn, HMS Victorious, August 1945

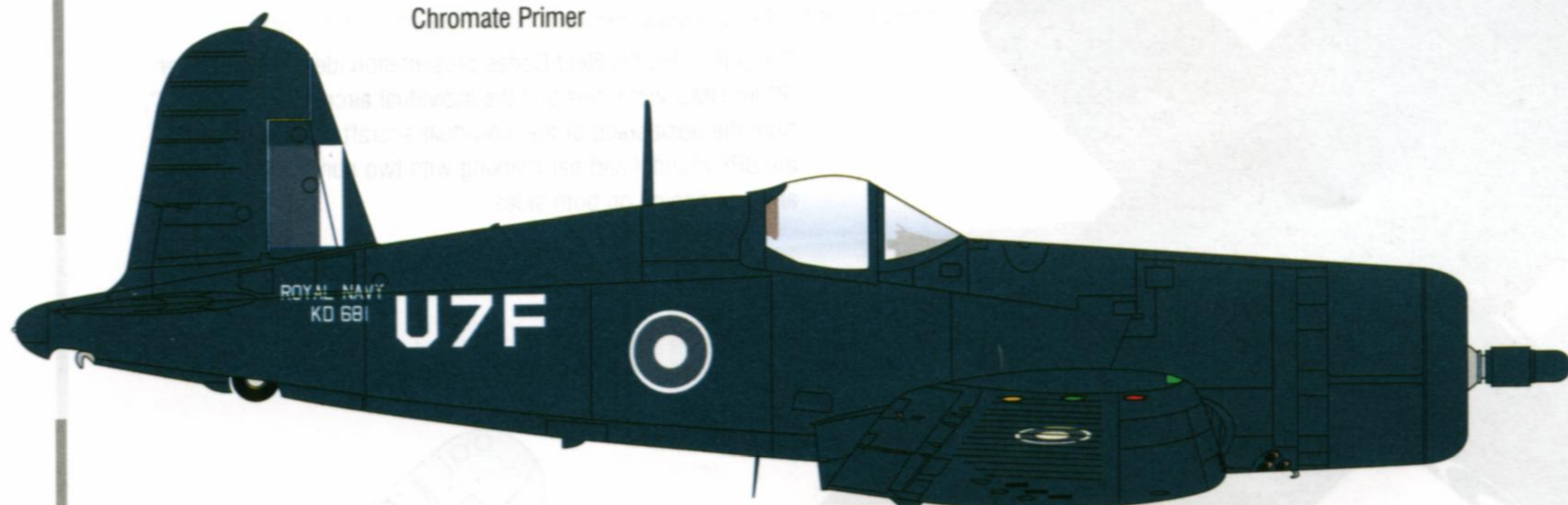
Finished in the Temperate Sea Scheme of Extra Dark Sea Grey and Dark Slate Grey with Sky under surfaces, probably applied in the US during manufacture. The original ETO markings have been overpainted in matching camouflage colours and British Pacific Fleet markings applied above the port and below the starboard mainplanes and on either side of the fuselage. The fin markings were painted out in matching camouflage colours. The propeller spinner was black.





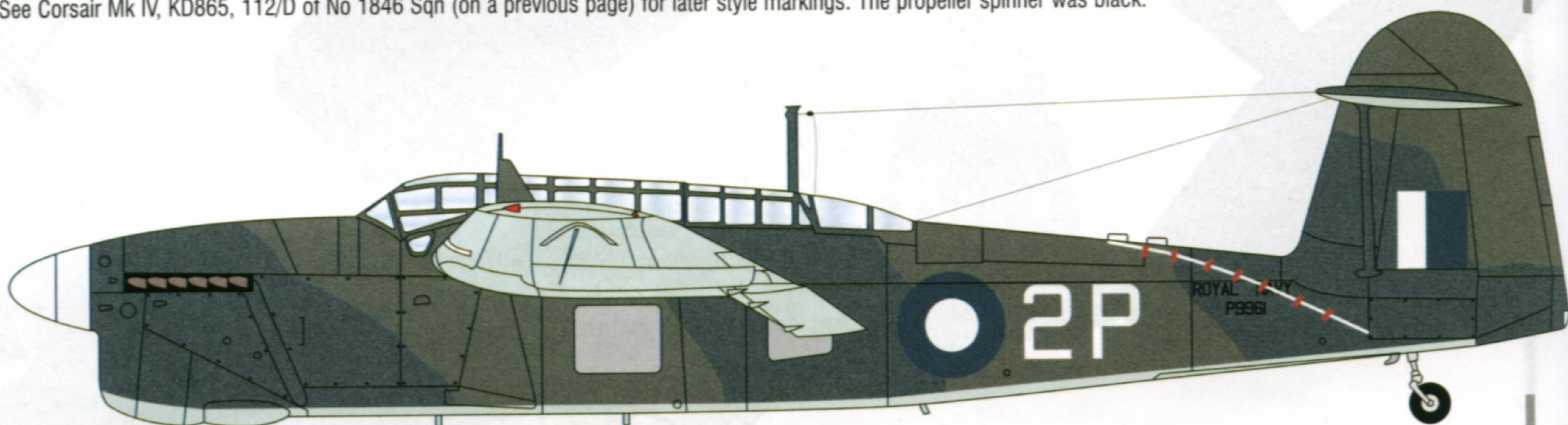
Corsair Mk IV, KD345, 130/A of No 1850 Sqn, HMS Vengeance, August 1945

Overall Sea Blue Gloss, applied in the US during manufacturer, with British Pacific Fleet markings applied above the port and below the starboard mainplanes and on either side of the fuselage. Note the cowling which is possibly a replacement, thought to be in Zinc Chromate Primer



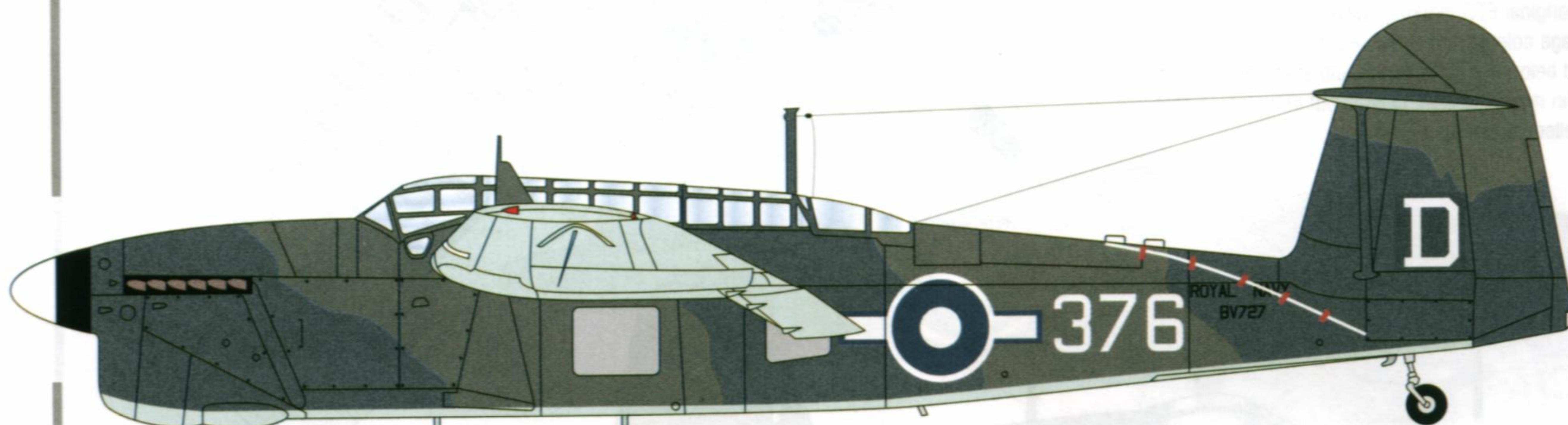
Corsair Mk IV, KD681, U7-F, of No 1846 Sqn, HMS Colossus, February 1945

Overall Sea Blue Gloss, applied in the US during manufacturer. South East Asia Command style roundels have been applied with white outlines. At this time the KD681 still carried the previous coding system - 'U7' identifying No 1846 Sqn and 'F' the individual aircraft letter. See Corsair Mk IV, KD865, 112/D of No 1846 Sqn (on a previous page) for later style markings. The propeller spinner was black.



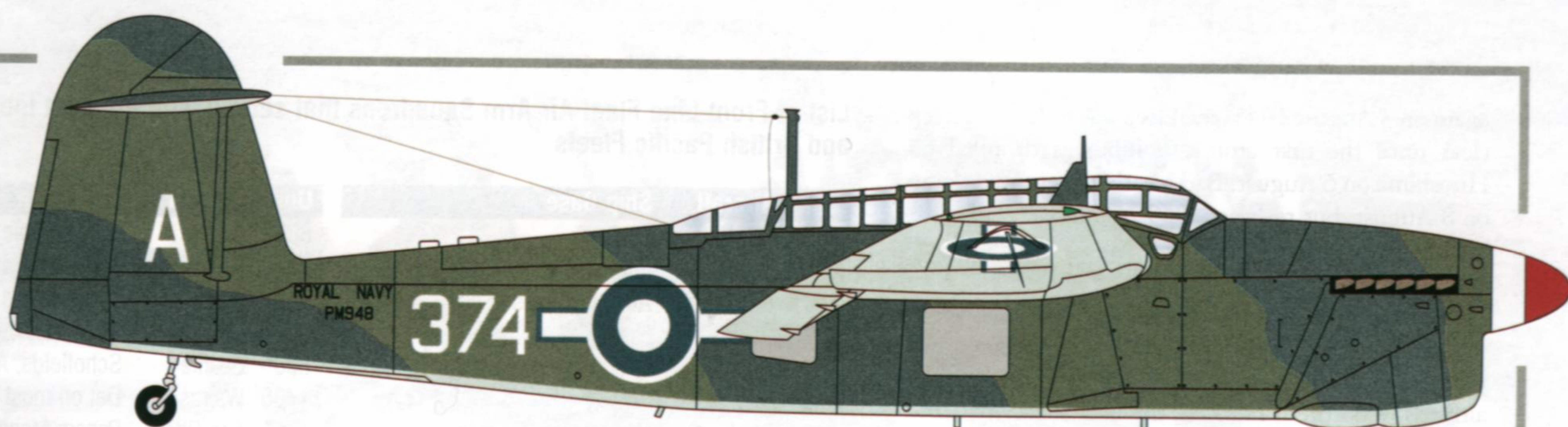
Barracuda Mk II, P9961, 2P of No 810 Sqn, HMS Illustrious, late 1944

Temperate Sea Scheme of Extra Dark Sea Grey and Dark Slate Grey upper surfaces, with Sky under surfaces. The original ETO markings have been replaced with South East Asia Command style roundels in all six positions. The fin markings have been painted out in matching camouflage colours. Note the white spinner.

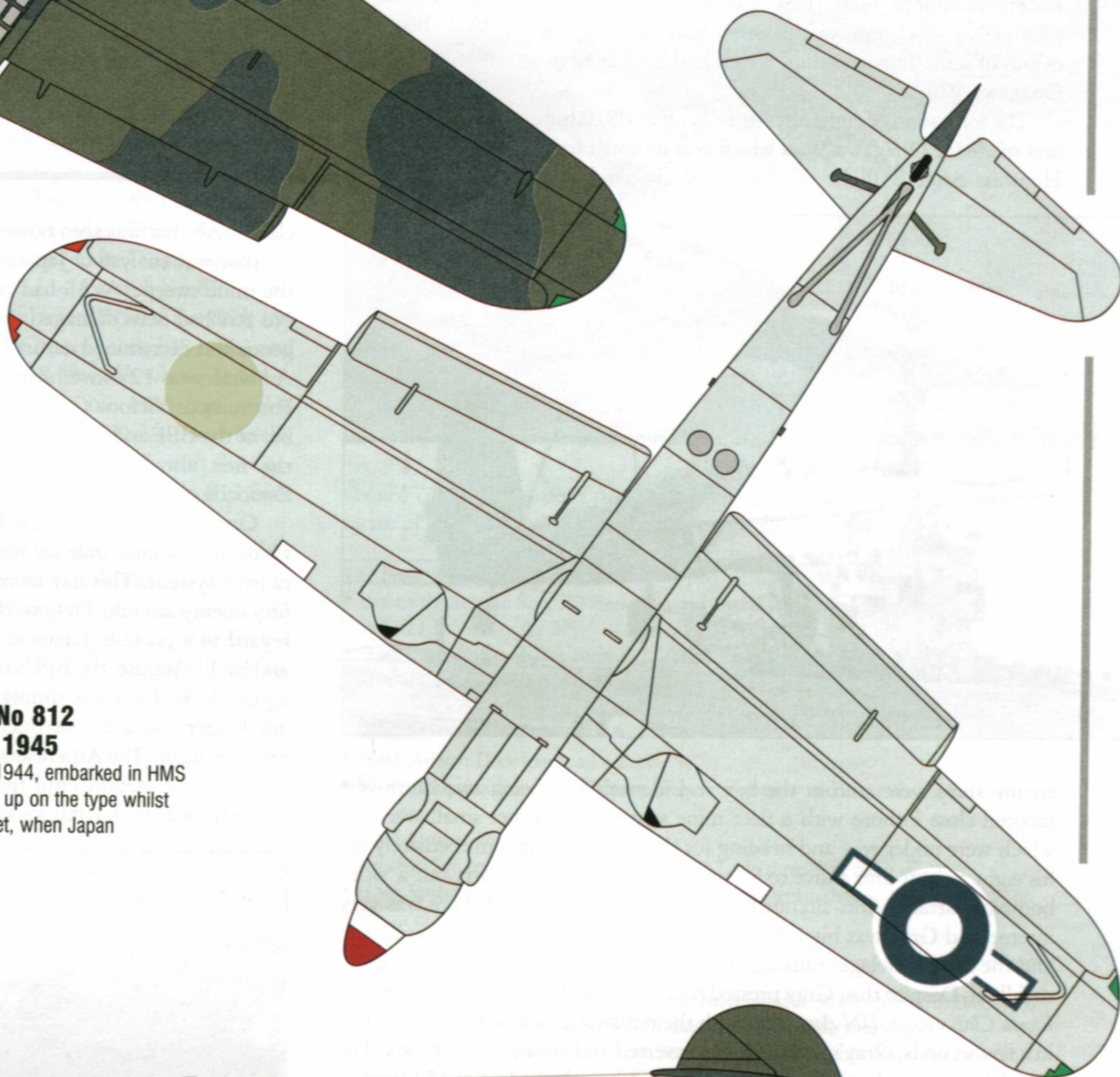
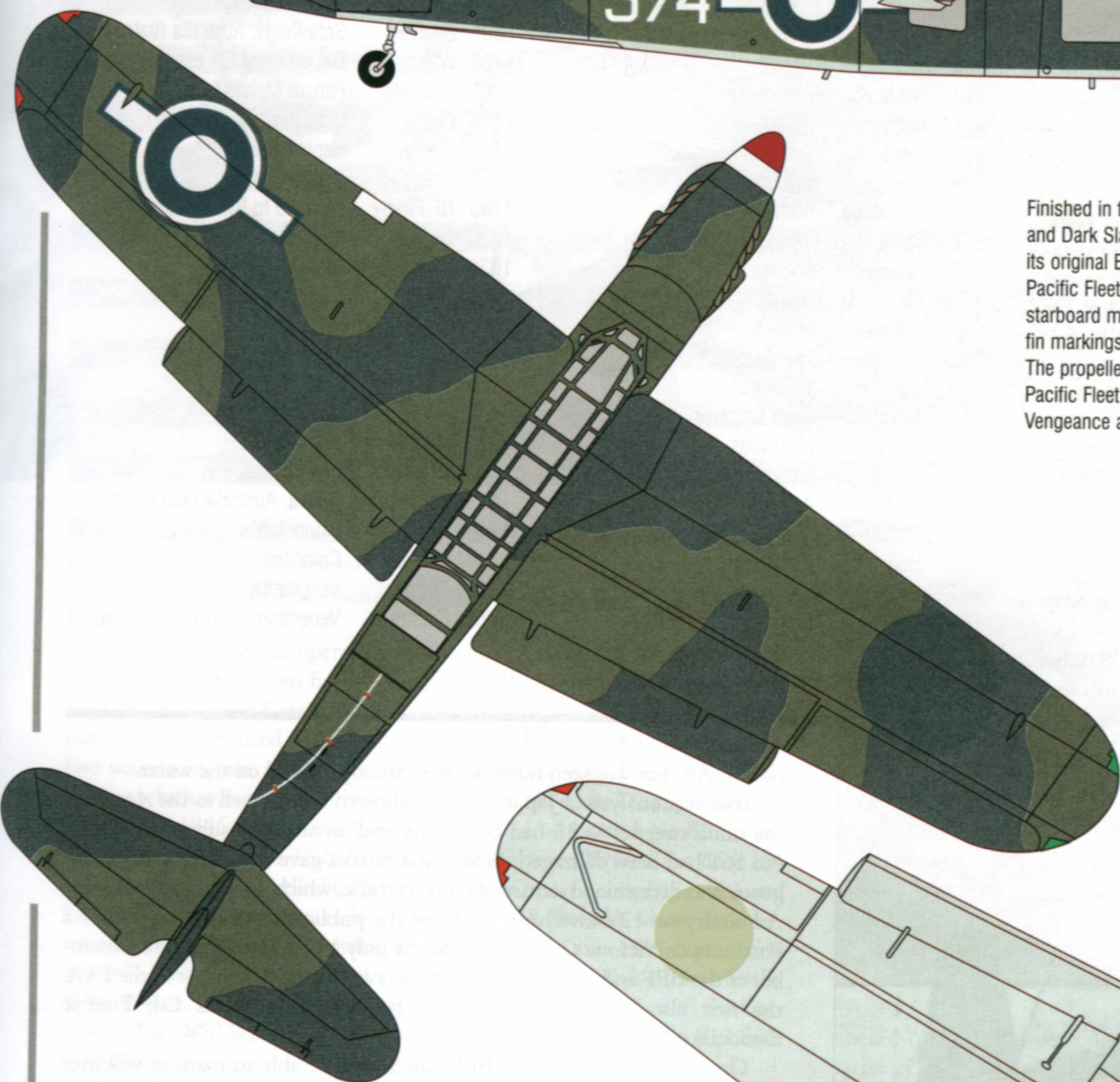


Barracuda Mk II, BV727, 376/D of No 827 Sqn, HMS Colossus, May 1945

Temperate Sea Scheme of Extra Dark Sea Grey and Dark Slate Grey upper surfaces, with Sky under surfaces. British Pacific Fleet markings were carried above the port and below the starboard mainplanes and on either side of the fuselage. The propeller spinner was black with a white tip. Note the style of the letter 'D' on the fin.

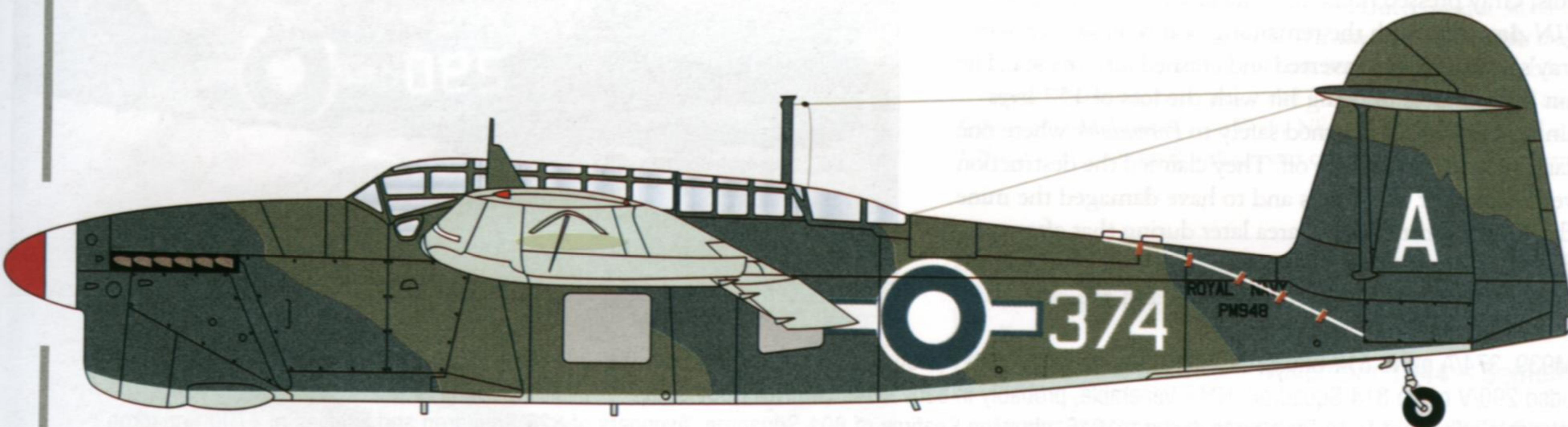


Finished in the Temperate Sea Scheme of Extra Dark Sea Grey and Dark Slate Grey upper surfaces with Sky under surfaces, its original ETO National markings were overpainted and British Pacific Fleet markings applied above the port and below the starboard mainplanes and on either side of the fuselage. The fin markings were painted out in matching camouflage colours. The propeller spinner was white with a red tip. The British Pacific Fleet Codes presentation identifies the letter 'A' for HMS Vengeance and the individual aircraft number, '374'.



Barracuda Mk II, PM939, 374/A of No 812 Squadron, HMS Vengeance, August 1945

No 812 Sqn was reformed on Barracudas in mid-1944, embarked in HMS Vengeance in January 1945, and was still working up on the type whilst sailing to the Far East to join the British Pacific Fleet, when Japan surrendered and effectively ended World War Two.



again on 3 August 1945, the Fleet was ordered to keep clear until the first atomic bomb was dropped on Hiroshima on 6 August. Bad weather prevented flying on 8 August, but resumed on 9 August.

Ramrod 3A

Because 9 August had been selected as the date of the second atom bomb attack, this day's planned targets were well clear of the Nagasaki area, consisting of airfields in northern Honshu, the northernmost island of Hokkaido, and shipping in the ports of these areas.

Following the recent bad weather, the day dawned clear with excellent visibility, but at the same time with sufficient cloud cover to provide some concealment for the aircraft and allow for a measure of tactical surprise. On board *HMS Formidable* flying operations began at 0410 hours with a Ramrod 'Ramrod 1A' comprising twelve Corsairs led by the CO of No 1841 Sqn, Lt Cdr (A) R Bigg-Wither, RNVR, followed an hour later by No 848 Squadron's Avengers which contributed to a massed strike by the BPF on Matsushima airfield. The ship's second fighter sweep – 'Ramrod 3A' – was originally briefed to attack airfields, but as the aircraft were ranged on deck with their engines running, the Flight's leader, Lieutenant Robert Hampton Gray, DSC, RCNVR, the senior pilot of No 1841 Sqn, was passed a note which gave details of some Japanese ships which had been sighted in Onagawa Wan.

The formation of eight aircraft took off at 0810 hrs and made for Onagawa Wan which was in north east Honshu. After a flight of approximately an hour,

List of Front Line Fleet Air Arm Squadrons that served with the East Indies and British Pacific Fleets

Unit	Aircraft	Ship/Base	Unit	Aircraft	Ship/Base
800	Hellcat	Emperor	887	Seafire	Indefatigable
801	Seafire	Implacable	888	PR Hellcats	various EIF carriers
804	Hellcat	Ameer Empress Shah	894	Seafire	Indefatigable
807	Seafire	Hunter	896	Hellcat	Empress Ameer
808	Hellcat	Khedive Emperor	899*	Seafire	Schofields, Australia (training)
809	Seafire	Stalker	1700	Walrus	Det on most EIF escort carriers
812	Barracuda	Vengeance	1701	Sea Otter	Ponam Manus Is
814*	Barracuda	Venerable	1770	Firefly	Indefatigable
815*	Barracuda	Smiter	1771	Firefly	Implacable
820	Avenger	Indefatigable	1772	Firefly	Indefatigable
821*	Barracuda	Trumpeter	1790*	NF Firefly	en route to BPF in Vindex
827	Barracuda	Colossus	1830	Corsair	Illustrious
828	Avenger	Implacable	1831*	Corsair	Glory
837*	Barracuda	Glory	1833	Corsair	Illustrious
845	Avenger	Empress	1834	Corsair	Victorious
848	Avenger	Formidable	1836	Corsair	Victorious
849	Avenger	Victorious	1839	Hellcat	Indomitable
851	Avenger	Shah Emperor	1840	Hellcat	Speaker
854	Avenger	Illustrious	1841	Corsair	Formidable
857	Avenger	Indomitable	1842	Corsair	Formidable
879	Seafire	Attacker	1843*	Corsair	Nowra, Australia (spare sqn)
880	Seafire	Implacable	1844	Hellcat	Indomitable
881*	Hellcat	For Pursuer	1846*	Corsair	Colossus
882*	Wildcat	Searcher	1850	Corsair	Vengeance
885	Hellcat	Ruler	1851*	Corsair	Venerable

* = Unit saw no action against the Japanese before 1945.



enemy ships were seen in the bay and identified as being two destroyers moored close inshore with a fleet mine sweeper and other small warships which were under way and heading for the open sea. Gray immediately led his eight aircraft into a dive to a very low level in order to carry out a 'skip-bombing' attack. Anti-aircraft fire from both the ships and shore was very intense and Gray was hit almost at once, in the engine, which caught fire, and the lower fuselage, causing one of the two 500lb bombs being carried to fall off. Despite this, Gray pressed home his attack, and hit his target, the *Etorfu Class* escort, *IJN Amakusa*, with the remaining bomb. However, within a few seconds, Gray's aircraft rolled inverted and crashed into the sea. The *Amakusa* sank within five minutes of being hit with the loss of 157 lives

The seven remaining Corsairs all returned safely to *Formidable* where one aircraft crashed on landing and was written off. They claimed the destruction of a second 'destroyer', a number of coasters and to have damaged the mine sweeper. The BPF flew further sorties in the area later during that afternoon, and the following day an Avenger from *HMS Formidable* flew a photographic reconnaissance sortie to try and confirm Grays' 'kill' and the other BPF

claims. All that was seen however were smudges of oil on the water.

Post-war analysis of Japanese losses showed that as well as the *Amakusa*, the mine sweeper W.33 had been sunk and an auxiliary submarine chaser No 161 had been damaged. Japanese survivors gave evidence of the courageous and determined nature of Gray's attack, which was recognised by the Admiralty on 12 November 1945, by the publication of the citation for a Posthumous Victoria Cross. This was the only VC to be awarded to a member of the BPF and only the second to be awarded to a member of the FAA, the first also having been awarded posthumously, to Lt Cdr Eugene Esmonde in 1942.

On 10 August 1945, the BPF's aircraft were able to roam at will over Honshu attacking military installations, aircraft and what remained of the railway system. This day alone saw the BPF claim the destruction of over fifty enemy aircraft. Despite the rumours circulating within the Fleet with regard to a possible Japanese surrender, no official word was forthcoming and by 11 August, the BPF's fuel situation was becoming critical. The inadequate Fleet Train was simply unable to keep the full strike force supplied any longer and as a consequence most of the BPF was forced to withdraw, on 12 August. The Americans agreed to provide fuel for a small token force to remain on station until the end, and *HMS Indefatigable* was the carrier selected, because having joined the fleet late, she was better off for stores.



MID LEFT Barracuda PM939, 374/A of No 812 Squadron, HMS Vengeance, probably photographed immediate post-war (via Neil Robinson)

BOTTOM Firefly NF.I, coded 290/V of No 814 Squadron, HMS Venerable, probably in early 1946 (via Neil Robinson)

OPPOSITE TOP HMS Implacable's Forward Deck Park, circa January 1946, showing Seafires of 801 Squadron, Avengers of 828 Squadron and Fireflies of 1790 Squadron (via Ian Gazeley) MIDDLE Seafire Mk III, 131/N of No 801 Squadron 'prangs' aboard HMS Implacable, January 1946 (via Ian Gazeley) BOTTOM Firefly Mk I, MB476 of No 1790 Squadron, HMS Implacable, sporting European Theatre national markings, early 1946? (via Ian Gazeley)



HMS Indefatigable's Air Group continued to operate over Japan until offensive operations officially ceased on 15 August 1945.

Reinforcements

Whilst the BPF was operating off the Japanese coast, a steady stream of reinforcements had been finding their way out to Australia in the form of the new Light Fleet Carriers. Built to a war emergency design, these ships did not have armoured decks and were equipped with an Air Group of only two squadrons, one of Corsairs and one of Barracudas. These were *HMS Colossus* which was allocated the deck letter and tail code 'D', applied to the tails of No 1846 Squadron's Corsairs, coded 111-131 and No 827 Sqn's Barracudas, coded 370-382; *HMS Glory* which was allocated the deck letter and tail code 'L', applied to No 1831 Sqn's Corsairs, coded 111-123 and No 837 Sqn's Barracudas, coded 370-381; *HMS Venerable* whose deck letter and tail code was 'B', applied to the Corsairs of No 1851 Sqn, coded 111-127 and the Barracudas of No 814 Sqn, coded 370-381; and finally *HMS Vengeance* whose deck letter and tail code was 'A', applied to the Corsairs of No 1850 Sqn, coded 111-131 and the Barracudas of No 812 Sqn, coded 370-381.

The allocation of these deck letters serves to illustrate the complete break made by the BPF with the markings instructions contained in CAFO 1098/45 'Aircraft distinguishing symbols', which was promulgated on 21 June 1945 replacing the provisions of CAFO 1901/44. The new CAFO made no mention of the marking system employed by the BPF and allocated the letters N to Z inclusive, for use as Tactical Unit letters

These Light Fleet Carriers arrived during July and August 1945, when they formed the 11th Aircraft Carrier Squadron under the command of Rear Admiral C H J Harcourt, who flew his flag from the now refitted *HMS Indomitable*. It was to these ships that the final operations by the BPF fell, when attacks against Japanese suicide boats around Hong Kong Island were made by aircraft from *HMS Indomitable* and *HMS Venerable* on 31 August and 1 September. The next day, the Japanese formally surrendered



aboard *USS Missouri* with Admiral Fraser signing his name as the representative of Great Britain, and the BPF's war was over. **AM**

The Fleet Train

- Besides the fighting fleet, the Fleet Train and several shore based units can also be classed as First Line units of the BPF.
- The Escort Carriers of Task Force 112 – The Fleet Train
- *HMS Ruler*: Deck letter and tail code 'R'
- No 885 Sqn equipped with Hellcats and Avengers coded K8. No three-digit codes allocated.
- *HMS Arbiter*: Deck letter and tail code 'W'
- No 1843 Sqn equipped with Corsairs. Only single letters used. No three-digit codes allocated.
- *HMS Speaker*: No tail code used.
- No 1840 Sqn equipped with Hellcats coded A7. No three-digit codes allocated.
- *HMS Striker* and *HMS Chaser* were used entirely as replenishment carriers and had no aircraft of their own.

Shore based units

- No 1701 Sqn 'A' Flight equipped with Sea Otters based at Mobile Naval Air Base No 6 Maryborough. Markings unknown. (Ed note: Can anybody out there help?)
- No 1701 Sqn 'B' Flight equipped with Sea Otters based at Mobile Naval Air Base No 4 Ponam. Thought to have been coded P3. (Ed note: Can anyone confirm or refute this?)
- No 1790 Sqn equipped with Firefly NF.IIs, coded 282-298 based at Schofields.
- No 1845 Sqn equipped with Corsairs coded from about 139 onwards, based at Nowra



DON'T MISS NEXT MONTH'S ISSUE The British Pacific Fleet

Part Two – November 1944 – September 1945

In part two of the coverage of the British Pacific Fleet, Paul Lucas describes the camouflage schemes and markings carried by BPF aircraft



'Desert Storm' Tornado

Tom Ross looks back at an operational Tornado from the 1991 Gulf War

■ IN JUNE 1991, TOM ROSS WAS FORTUNATE ENOUGH TO photograph Tornado GR.1, ZA475, 'night-stopping' at RAF Abingdon. He could hardly believe what he was seeing - the aircraft's overall appearance was probably the worst case of 'wear and tear' he had ever seen on a serving RAF aeroplane!

With its twenty-two mission markings on the nose, ZA475 had certainly seen 'some service' during the 1991 Gulf War, whilst based at Muharraq, in Bahrain. Nose art was very much a feature of the 1991 Gulf War Tornado Fleet and ZA475 was no exception, with a 'sharkmouth' on the starboard side just behind the black nose radome and the 'Triffid Airways' logo under the cockpit, together with a red 'Triffid' and the words 'Watch out for the sting'.

ZA475 didn't last long in its 'distressed' state, and a few weeks later, following its return from the paint shop, it joined No 27 Squadron, coded 'JL' at RAF Marham. It was transferred to No 12 Squadron coded 'FH' in 1993, initially still based at Marham and then RAF Lossiemouth.

By 1996, ZA475 had been converted to GR.1B standard enabling it to carry 'Sea Eagle' anti-ship missiles. Unfortunately, ZA475 was not chosen to be upgraded to GR.4 standard and it now the gate guardian at RAF Lossiemouth. **AM**



1: ZA475 arriving at RAF Abingdon on 6 June 1991, carrying a standard Dark Green light bomb carrier under the fuselage. Note how the port underwing 2250 litre (495 gallon) fuel tank is more grey than Desert Sand when compared to the starboard (darker) underwing fuel tank. The reverse thrust has left its tell-tale stain across the fin.

2: Close-up of the 'artwork' on the port side of the nose, showing the twenty-two bomb symbols - of which the last four on the top row and those on the bottom row are in a different shade to the remainder. Signs of repainting are evident as is the

general wear of the finish. Both ZA475/P and ZA445/J carried variations of the 'Triffid Airways' and 'Watch out for the sting' markings.

3: Close-up of the port area in between the wings and the tailerons. Note that the serial has been reapplied in white slightly smaller than before and with a gap between the letters and the numbers. The taileron incidence markings were retained.

4: The area around the gun port appears to have been prepared for a 'sharkmouth'. Note the tape sealing the canopy for the overnight stay at RAF Abingdon and the slight tint of the windscreen glass.

5: Close-up of the starboard area in between the wings and the tailerons. Note the numeral '4' of the serial has peeled off but its 'silhouette' remains.

6 & 11: ZA475 taxiing for departure on the following day. Note the contrasting finish of the 2250 litre fuel tanks which is very evident.

7: Close-up of the port 2250 litre fuel tank inner face showing signs of graffiti - some of which can be deciphered on the original photo!

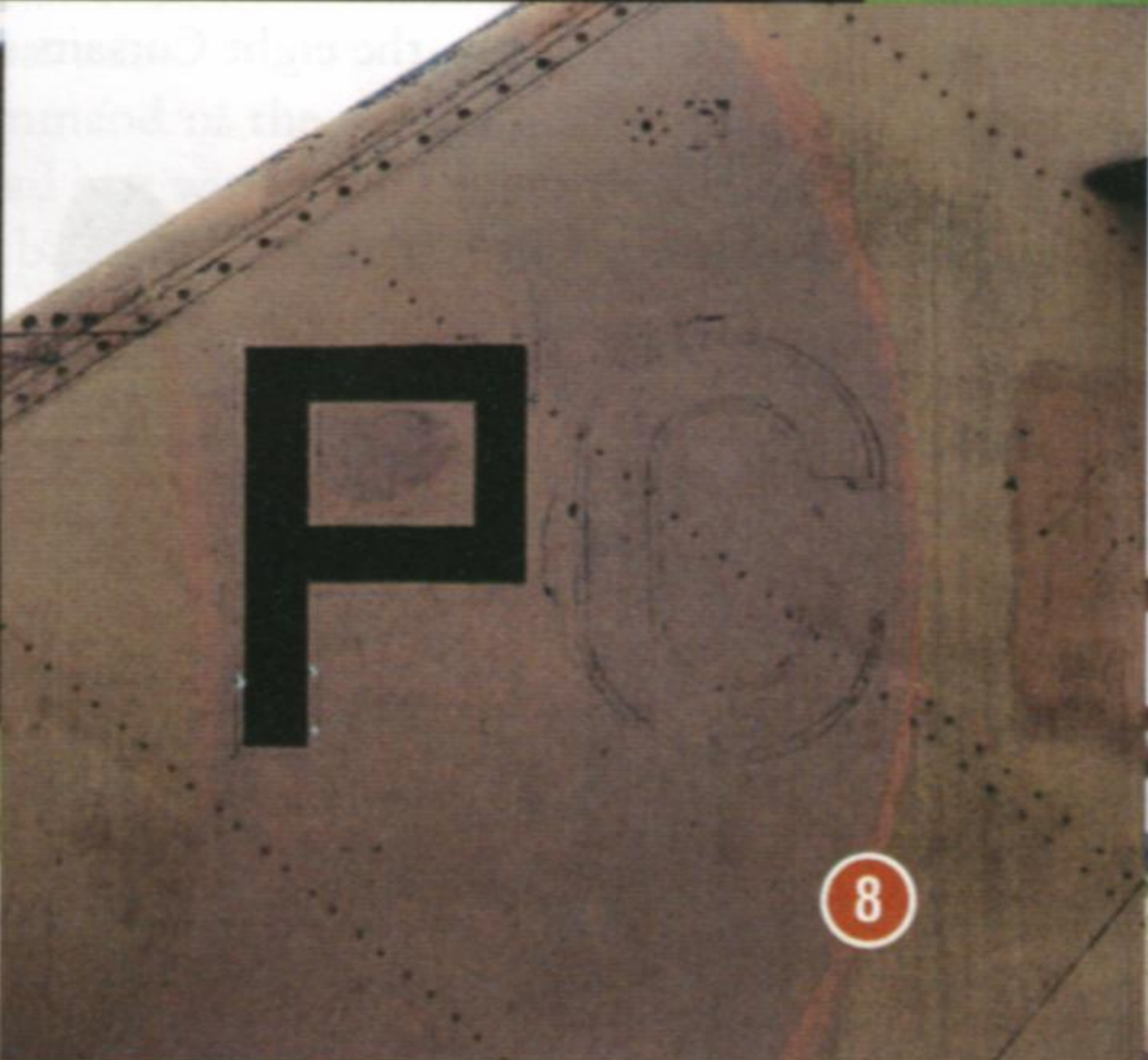
8: Close-up of the port side of the fin showing signs of the previous code 'FC' and the original camouflage demarcation

beneath the Desert Sand 'overcoat'.

9: The refuelling probe was not normally carried on aircraft based in Germany and would have been removed shortly after ZA475's return from the Gulf to RAF Laarbruch, leaving as seen here, an outline shape of the original camouflage colours. Note the 'sharkmouth' around the cannon port.

10: Overall side view of the starboard side of ZA475, showing the lighter coloured 2250 litre fuel tank.

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Corsair VC

Ramrod 3A's Victoria Cross – The Story of 'Hammy' Gray's Fateful Mission

■ AT 0800 HRS ON WEDNESDAY 9 AUGUST 1945, TWO Flights of Corsair IVs were warming up on the deck of HMS *Formidable* which was steaming off the coast of Japan. The leader of the two, four-aircraft Flights was a Canadian, Lieutenant Robert Hampton 'Hammy' Gray, DSC, RCNVR, the senior pilot of 1841 NAS who was by now something of a veteran, having won the Distinguished Service Cross during the strikes against the Norwegian based *Tirpitz* in 1944. The other seven Corsairs were flown by Sub Lieutenants Mackinnon, Reeve, Hughes, Maitland, Blade, and Abbot, along with Lt Storehill of the Royal Norwegian Navy. Interestingly most of these pilots were British, with the exception of Gray and Storehill, which was something of a rarity in view of the large number of New Zealanders and other 'colonials' who were serving in the Fleet Air Arm at this time, and for three of them this was to be their first operational sortie.



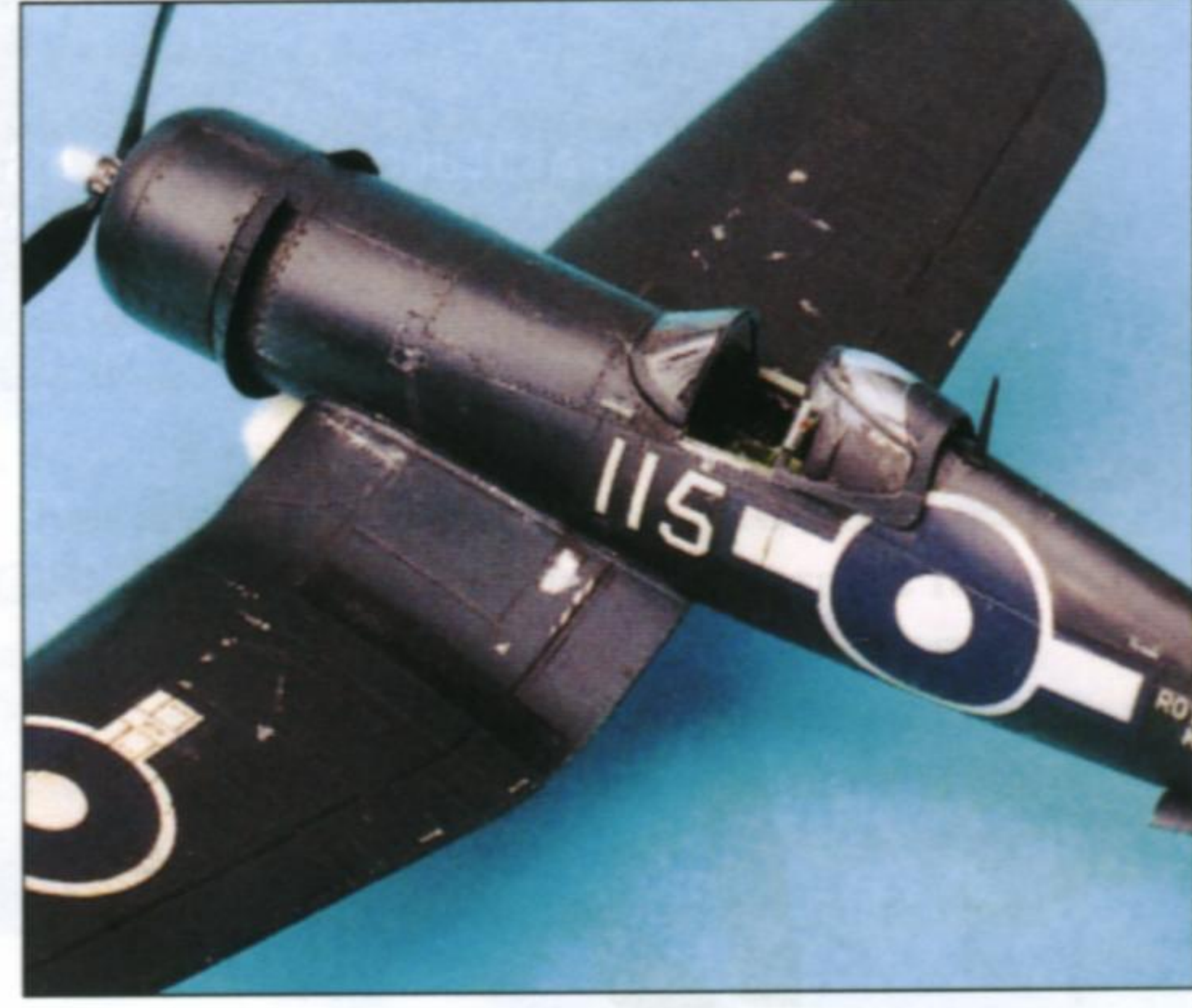
trovery about which markings this aircraft carried, however.

Earlier in the year, 'Hammy' Gray's usual Corsair had been KD339, which was coded 115/X, but the last record that I can find of its service with 1841 NAS was when it was used by Sub Lt Stirling, (as his usual aircraft was inaccessible), to share in the shooting down of an A6M 'Zero' in May 1945. As this particular aircraft went on to serve with No 1850 NAS on HMS *Vengeance* until November 1945, it could not have been the Corsair flown by Gray on the 9 August sortie, so my theory, (and it is only a theory), is that KD339 was flown to one of the Fleet Train Carriers to have deep maintenance or a repair carried out and it was replaced by KG658, which was then coded 115/X instead.

The eight-aircraft section was the second strike to fly from *Formidable* that day and had been briefed to conduct a bomb-armed 'Ramrod' against airfields on the northern Japanese mainland. However, at the last minute a note was passed up to Gray's cockpit containing details of a change of target to some Japanese warships that had been sighted by the first sortie, in the Onagawa Wan area. The note had been passed by Petty Officer Sweet, who noticed that Gray was flying Corsair KG658. There is much con-

At 0810 hrs, the eight Corsairs started to take off from *Formidable* and headed towards Japan, eventually spotting the enemy warships an hour later in the Onagawa Wan, as briefed. There were two large escort vessels at anchor and a flotilla of smaller minesweepers which were just head-





ing out to sea and 'Hammy' Gray led his section in at ultra low level to carry out a skip-bombing attack with their Corsairs' two 500lb bombs. Both the ships and shore installations put up a formidable anti-aircraft barrage which the Corsairs had to fly through and 'Hammy' Gray's aircraft was hit in the lower part of the engine, causing a large fire and knocking off one of his bombs.

Nevertheless he kept his aircraft steady and continued heading for his target, the IJN Etorfu Class escort vessel, the *Amakusa*. Crew members on board the *Amakusa* remember seeing the pilot's face as Gray's blazing Corsair flashed over their ship, before its 500lb bomb crashed down on target and exploded, killing 157 sailors and sinking the ship within five minutes. The Corsair continued over the ship and rolled over onto its back before plunging into the sea, killing its pilot.

Sub Lt Mackinnon took over command of the section and although they were all shocked at what they had just witnessed, he led them in for another attack before they returned back to *Formidable*, leaving another ship, the minesweeper W.33, sinking and a smaller vessel, submarine chaser No 61, heavily damaged.

On that same day, the Fleet Air Arm flew a total of 408 sorties, 268 of which were offensive operations over Japan and they destroyed forty-four Japanese aircraft on the ground as well as badly damaging a large number of airfield installations and coastal shipping, including sinking the two ships in the Onagawa Wan. A total of seven aircraft was lost, including Gray's Corsair and another from his section that crashed upon landing back on *Formidable*.

The next day, 10 August 1945, the British Pacific Fleet flew its last sorties of the war when a further 226 sorties were launched, losing six aircraft and two aircrew before retiring from operations to replenish. Before the Fleet could return to recommence operations against Japan, after replenishing in typhoon conditions, the Admiralty sent out an order on 15 August 1945, stating that all operations against Japan should 'cease forthwith'. *HMS Formidable* returned to Australia where it docked to a rapturous welcome at No 6 Berth at Woolloomooloo in Sydney on Friday

24 August. This great aircraft carrier had certainly 'done her bit' but was destined to never again operate aircraft from its flight deck, becoming a troopship instead.

Lieutenant Robert Hampton Gray was awarded the British Empire's ultimate award for heroism, the Victoria Cross, for his actions on the 9 August 1945, only the second awarded to a fighter pilot and to a member of the Fleet Air Arm during World War Two. His citation reads:-

'For great valour in leading from the aircraft carrier Formidable an attack on a Japanese destroyer in Onagawa Wan in the Japanese island of Honshu on 9 August 1945. In the face of fire from shore batteries and a concentration of fire from some five warships, Lt Gray pressed home his attack, flying very low in order to ensure success. Although he was hit and his aircraft was in flames, he obtained at least one direct hit, sinking the destroyer. Lieutenant Gray has consistently shown a brilliant fighting spirit and most inspiring leadership.'

After the war the Japanese built a memorial to commemorate the 157 Japanese lives lost in 'The Battle of Onagawa Wan' which also honours Gray's courage with the simple statement, '158 brave men lost their lives in the bay on the morning of 9 August 1945'.

Modelling 'Hammy' Gray's Corsair Mk IV

This model of 'Hammy' Gray's Corsair Mk IV was built using the excellent Tamiya 1/72 scale kit and the only alteration made was to 'clip' the wingtips – level with the outside of the navigation/formation lights – and then to sand them smooth. The kit was built as I imagined KD658 would have looked wearing the codes 115/X and the decals all came from ModelDecal sheets, with the roundels and codes coming from the now very hard to find British Pacific Fleet Set 118 and the serial number from the ModelDecal generic white letters sheet. The airframe was painted using the 'old' Humbrol 181 Sea Blue Gloss, which I find to be the best match to US Navy Sea Blue Gloss and is now sorely missed. **AM**

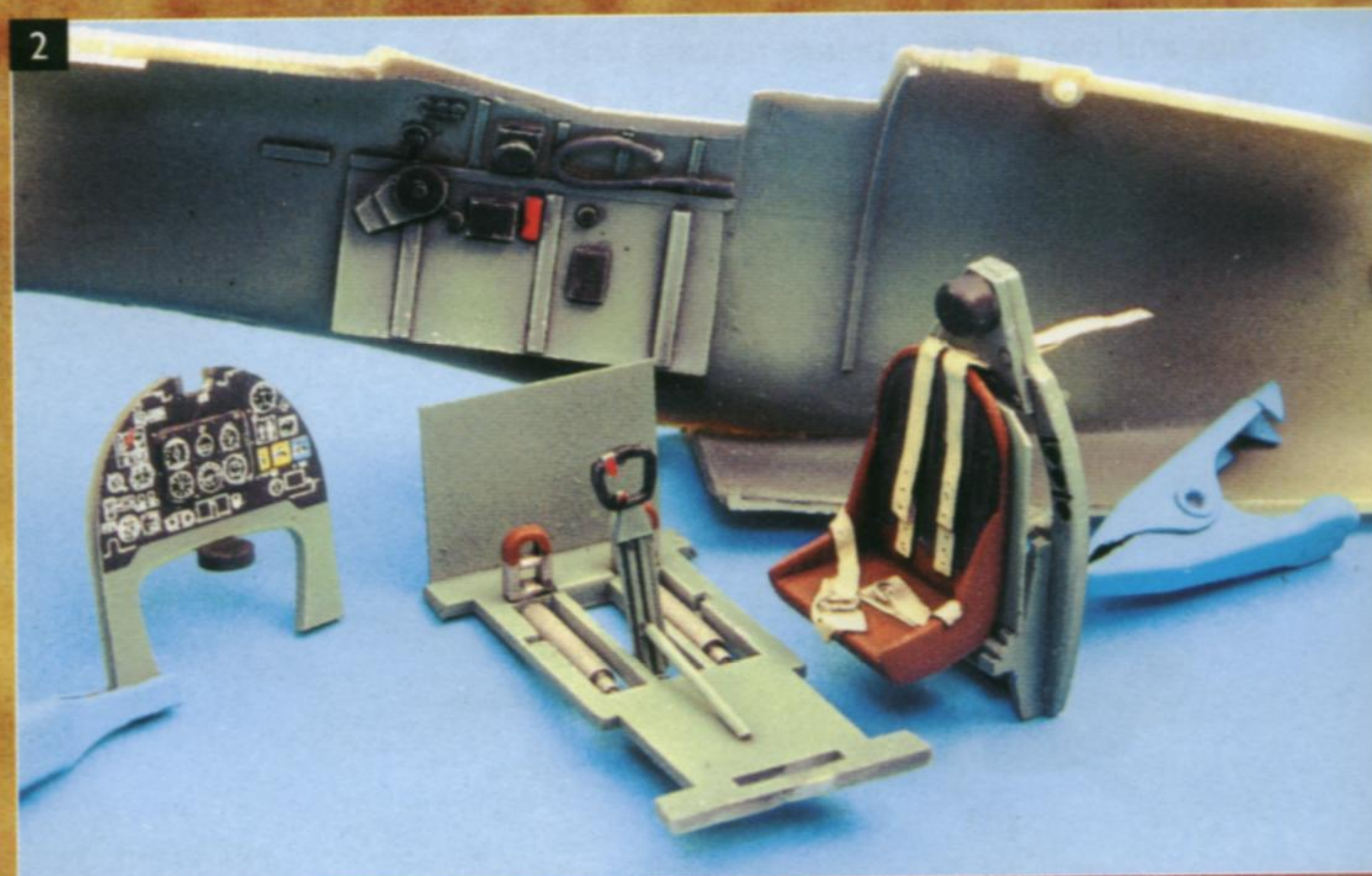
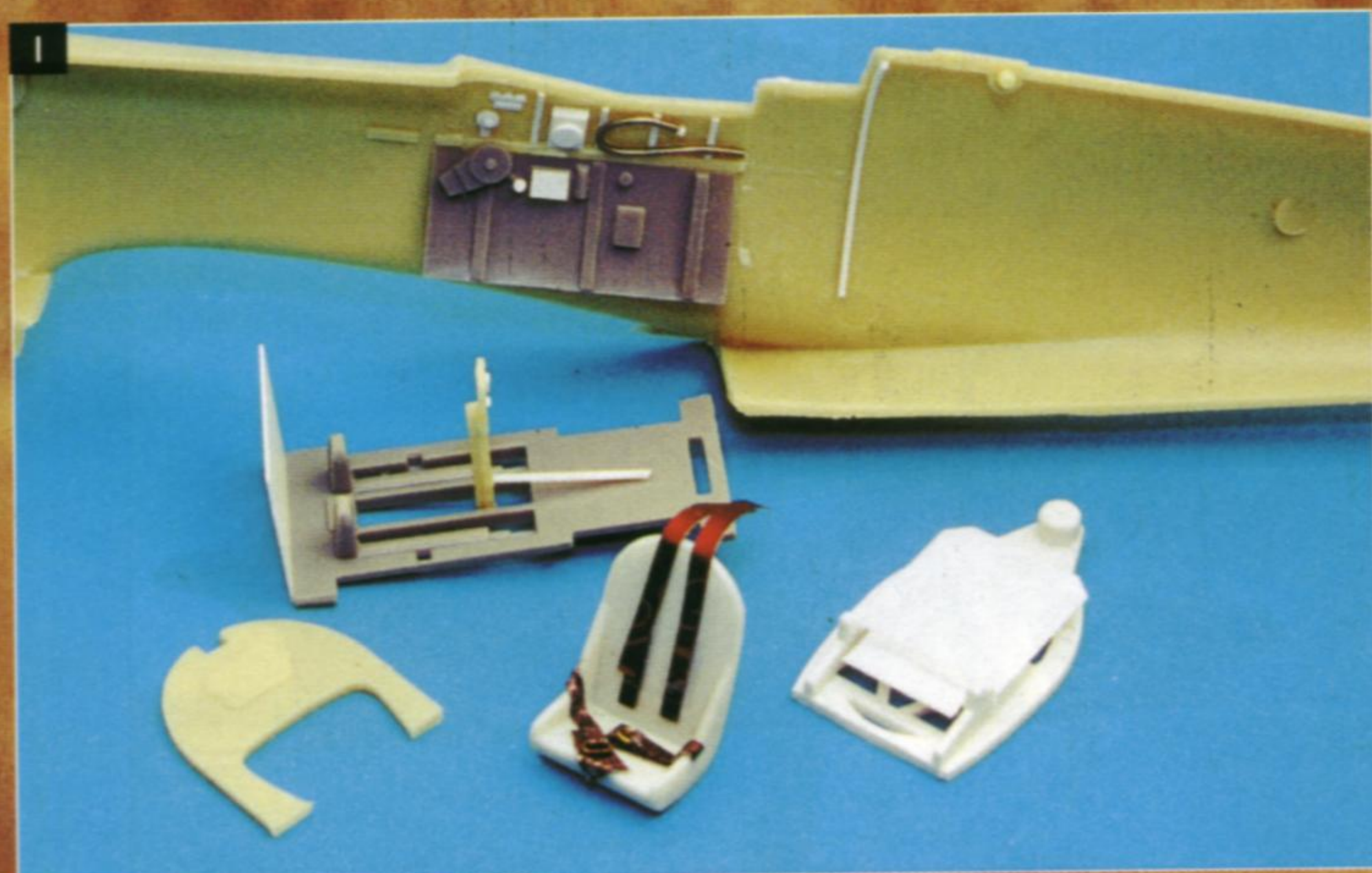


HMS Formidable

The Wandering Caribous Part Three

‘Touring the Continent’

Vic Scheuerman follows his coverage of the wartime activities of No 442 Squadron Royal Canadian Air Force, ‘The Wandering Caribous’, by filling-in the ‘Spitfire’ gap



Across the pond...

■ ON RETURN HOME FROM ITS TWO ALASKAN TOURS, (see 'MAM' July issue, Vol 4/7), No 14(F) Sqn was selected as one of six home fighter units that were despatched to the UK to help bolster forces for the upcoming invasion of continental Europe. It was renumbered as No 442 (Fighter) Squadron RCAF, at Digby, Lincolnshire on 8 February 1944, still under the command of Sqn Ldr B R Walker DFC, with his experienced pilots. No 442(F) Squadron would join with what was No 127(F) Squadron in Canada, redesignated No 443(F) Squadron, to become No 144 (RCAF) Wing, (originally called No 144 (RCAF) Airfield, which changed to Wing on 12 May 1944), led by the exceptional leader and well-liked 'Johnnie' Johnson DSO, DFC, RAF.

With the change in Operational Theatre came some other changes. Gone were the Kittyhawks and in came Spitfires. For training purposes the Mk Vb was used, but operations started with the more current Mk IXc version. Whilst No 14(F) Sqn had used 'YA' as the unit's code in Canada, in Britain it was changed to 'Y2'.

In the following months, No 442 Sqn carried out a variety of tasks and after dive-bombing practice in April, ground-attack was added to the variety of services that 442 could offer. On 28 March 1944, the 'Caribous' flew their first operational sortie with twelve Spitfire Mk IXs, providing top cover for No 441 Squadron who strafed Dreux aerodrome near Paris.

In between bomber escort missions, dive-bombing, and air-sea rescue searches, Nos 442 and 443 Squadrons found the time to set a long distance penetration record for Spitfires during one of their sweeps over the continent. With the invasion date of D-Day drawing ever closer, training with the Army was carried out in addition to bombing V-1 sites. The last pre-invasion sortie was on 4 June, with the target being a radar site south-west of Fecamp.

The day before the actual invasion, 5 June, saw the 'Caribous' providing cover for the invasion fleet during the day. They received detailed orders that night for the next day, D-Day proper, and the 'Caribous' were up at 03:15hrs and in the air from 06:30hrs until 22:00hrs for a total of 94 hours on four sweeps. This hectic pace was carried out also on the 7th and 8th. Another first was achieved by No 442, and later the same day by Nos 441 and 443 squadrons, when the Wing started operations from B.3 near St.Croix-sur-Mer – the first Allied squadrons to operate permanently from France since 1940.

No 442's first aerial victory

In the weeks following D-Day, the *Luftwaffe* began making itself felt again. No 442 were on a sweep on 22 June heading towards Argentan when two groups of enemy fighters were encountered. During the mêlée, Fg Off W R Weeks, the 'baby' of the squadron, found himself in a duel with the enemy. Giving chase to a Bf 109, Weeks had to throttle back to prevent overshooting his intended target. This action resulted with Weeks' starboard wing overlapping the port wing of this enemy aircraft. If this position was not unusual enough, the German pilot then gave Weeks the thumbs-down and Weeks replied by shaking his head, "no!"

Whilst playing this unintended variation of 'chicken', flying slower and slower and getting ever closer to a stall, it was the German who decided to apply throttle and in short order was downed in a hail of fire from Weeks' Spitfire Mk IXc. In the same mission, Wg Cdr Johnson scored his 30th 'kill' and P/Off Young got his first 'kill' while Sqn Ldr Russel and Flt Lt Marriot shared a 'kill'.

Touring the continent...

With first blood drawn, No 442 gathered steam and by the month's end led the Wing in the number of 'kills' in total plus held the record for a single day with six victories on 30 June. New skills were continually being added, and starting in June 1944, armed reconnaissance was included into the squadron's repertoire. On 8 July, following the sinking of several midget submarines, naval victories were added to the 'Caribous' scoreboard. The massacre of the midget submarines took place when the 'Caribous' were carrying out a beach patrol between Cherbourg and Le Havre. One of the patrolling sections sighted five of the subs near the mouth of the Orne River and promptly sank four! The next section came along and spotted another two that left one sunk and the other damaged, whilst the third section damaged another. Later in the day further attacks were carried out on another three midget submarines but without definite results.

The next change for Caribous had to do with organisational structure. The decision was made to have Fighter Wings now consisting of four squadrons in lieu of three, so No 144 Wing, (the most successful to date), was disbanded. In the reorganisation, No 442 joined Nos 401, 411, and 412 squadrons in 125(RCAF) Wing at B.4, Beny-sur-Mer.

It was business as usual, with the most dramatic battle taking place on 27 July. This was a classic 'bait and ambush', by the never-to-be underestimated *Luftwaffe*. The 'Caribous' were on a twelve-plane armed reconnaissance mission, when they came across two enemy aircraft and chased them to an airfield west of Paris. The 'reception party' consisted of a mixed force of about forty Bf 109s and Fw 190s, and it was amazing that none of the Canadians were shot down. Perhaps more amazing is they came out of the scrap with one probable and three damaged enemy aircraft added to their score sheet.

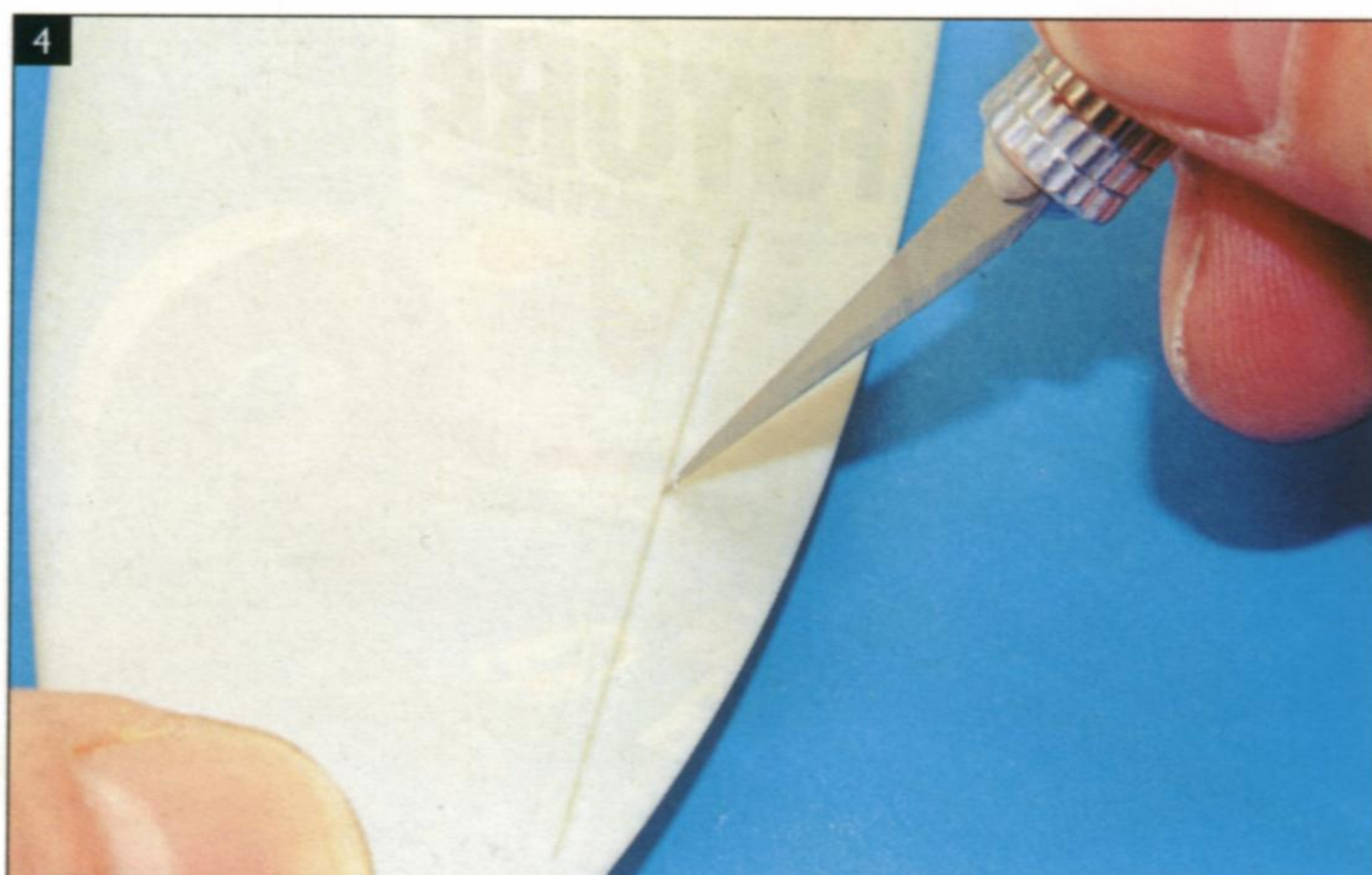
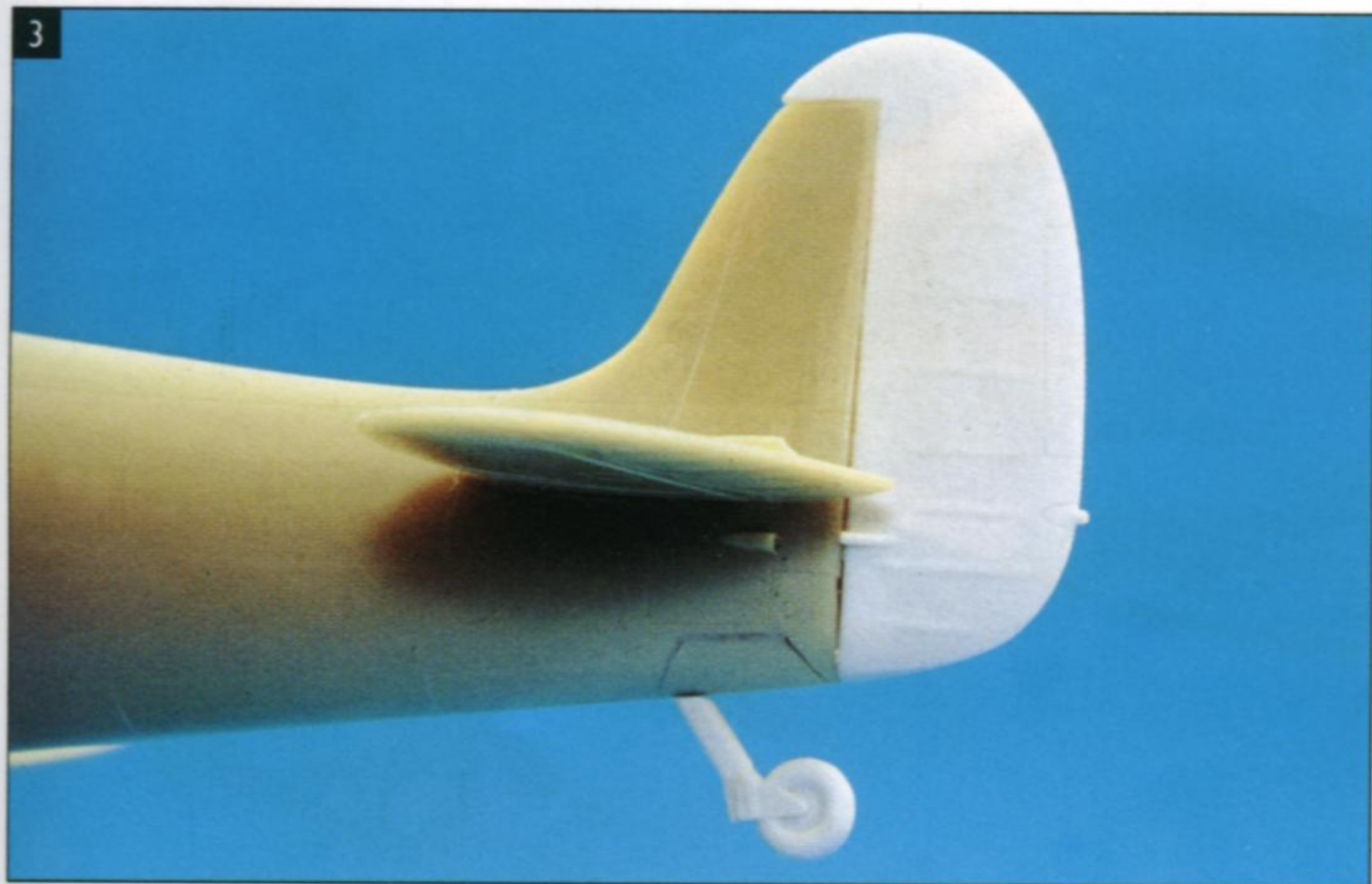
In the following months leading up to Christmas, it was a series of moves that saw the Wing make its way across the continent. Whilst the 'Caribous' were taking a toll on the enemy, the enemy *flak* was taking its toll on the squadron. Highlights were setting the August 1944 Wing record for enemy ground vehicles damaged/destroyed at 575, and the 2 October tangle with the vaunted Messerschmitt Me 262 jet, that ended in a 'probable' going to Fg Off Young with his daring head-on attack.

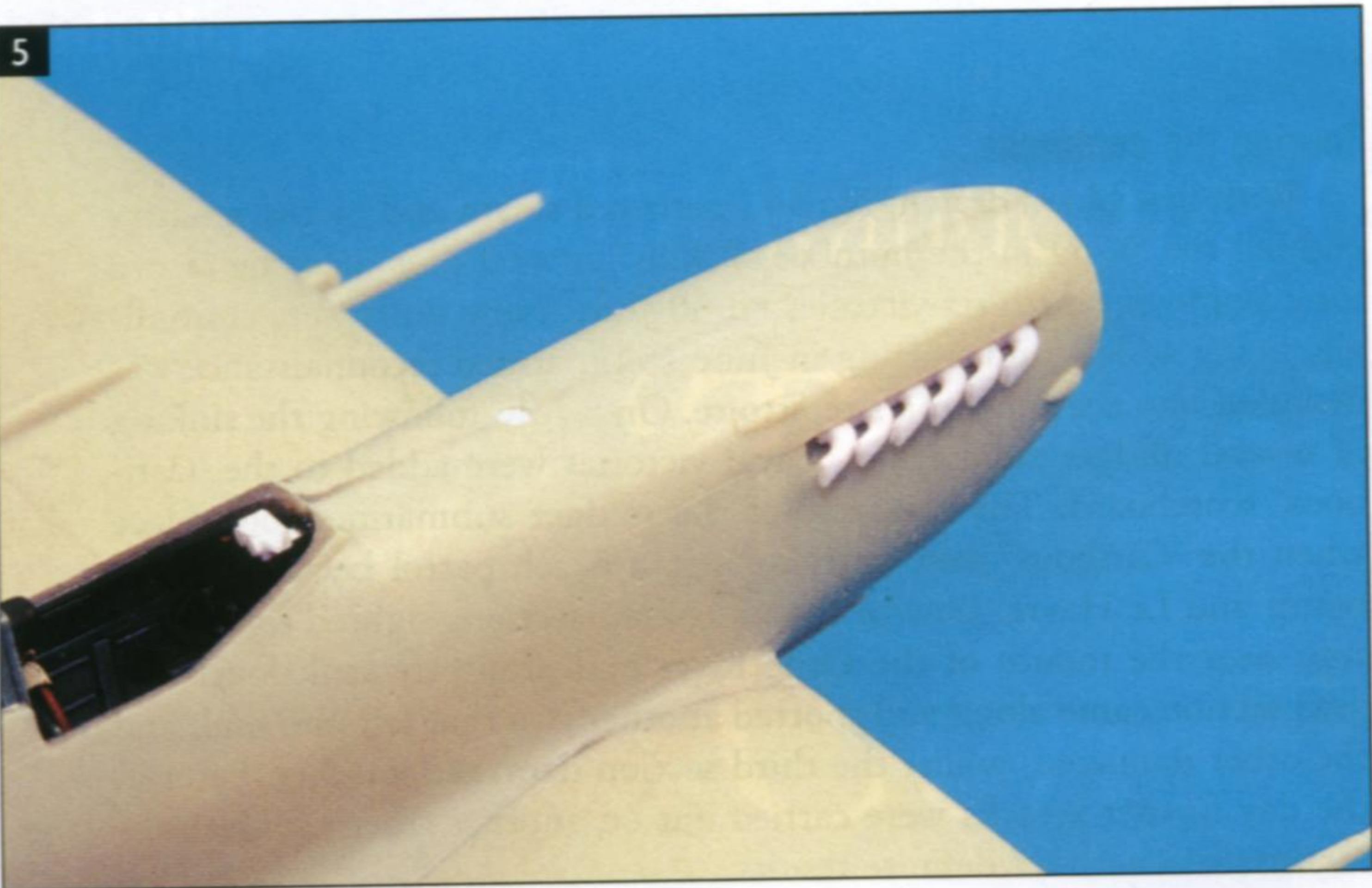
Another move saw the 'Caribous' arrive at the huge base at B.80, Volkel, that now boasted three Wings. Whilst located there, the 'hammer and tongs' operations began that saw rail lines being assaulted by Spitfires armed with a 500lb bomb under the fuselage and a 250lb bomb under each wing – a total of 1000 pounds of high explosives.

With winter setting in on the continent, there were stretches that did not allow for flying and the few remaining 'originals' probably thought they were back in the Aleutians! In mid-December, the 'Caribous' added their long-range slipper tanks, as they needed the extra range to take part in the 'Battle of the Bulge'. On the 18th, they carried out two sweeps over the sectors where the Germans were making their desperate gamble and in the process the 'Caribous' won the gratitude of the entrenched American soldiers.

'Operation Bodenplatte' and into spring '45...

The New Year started off with a 'bang', literally, as the Germans launched 'Operation Bodenplatte' – the air assault on the Allied airfields in the Low Countries. As No 442 Sqn were already airborne on a sweep, it partook in the mauling of a large mixed formation of Bf 109s and Fw 190s. Of the twenty-four enemy aircraft claimed 'destroyed' over





B.80, Volkel, the 'Caribous' share was six 'destroyed' and six 'damaged'.

One of the pilots, Flt Lt Smith, that had dropped out from the sweep, heard that the enemy was heading for Eindhoven and whilst heading in that direction became entangled with another formation of around forty enemy aircraft. After a series of engagements and finally out of ammunition and low on fuel, Flt Lt Smith returned to base to add yet another 'kill' to the day's tally. By sunset, No 442's New Year Day score stood at twelve confirmed 'kills' plus additional 'probable/damaged'.

Added to the scoresheet in February 1945, were aircraft of the definite non-fighter description as an entire flight of five night-attack configured Ju 87s were destroyed at dawn on the 8th. The final air victories for the 'Caribous' whilst flying the Spitfire were on 22 February 1945, when a formation of some forty enemy aircraft was attacked that ended up with additional 'kills' for the squadron. The final tally of air-to-air 'kills' for the 'Caribous' by the end of March 1945, was fifty-two 'destroyed', four 'probables' and twenty-five 'damaged' in just less than nine months since the unit's first 'kill' by Fg Off 'Baby' Weeks.

On 21 March 1945, the 'Caribous' were on the move again, leaving the continent to return to the UK and a change of mount, as told in May 2005 issue of 'MAM' (Vol 4/5).

'Baby' Weeks' Spitfire Mk IXc

For this particular 'quick build', I used the old 1/48 scale Otaki/Arii Spitfire Mk VIII mouldings, in the Airfix (05107) boxing, which I happened to have to hand. With so much controversy over the the recent Hasegawa Mk IX kit and as I did not have the Ocidental or ICM offerings to hand, the old Otaki/Arii mouldings seemed as good a place to start as any...

This kit does feature finely engraved surface detail with some subtle fabric representation and can still hold its own. Both the retractable tailwheel and bay and fixed tailwheel options are included. Despite ostensibly representing a Spitfire Mk VIII, the kit has the full-span ailerons of the Spitfire Mk IX, although the Airfix boxing kit instructions clearly show how much to shorten these to make an accurate Spitfire VIII. A 30 gallon 'slipper' fuel tank is included in this kit.

Where the kit does fall down is the simplistic and chunky way the cockpit interior is represented and the omission of the 'gull wing' underside centre section that is such a characteristic of the Spitfire. The Airfix boxing decals look very good in this kit with the well known 'leaping panther' decorated, Burma-based Mk VIII of No 152 Sqn RAF and a desert

camouflaged 'Lonesome Polecat' of the 31st FG, USAAF, based in Italy.

The instrument panel decal is in two parts and looks good as does a complete set of stencilling. The instruction booklet is first rate with a well drawn, seven-step, assembly sequence with aileron correction notes and the two kit marking options fully covered in four views – nice.

My model would get a modest upgrade thanks to my well stocked Spitfire spares box. The cockpit was a collage of leftovers whilst some exterior parts got replaced too. The one area that did not get corrected was the lack of the 'gull wing' underside centre section – so don't look underneath my model!

Construction

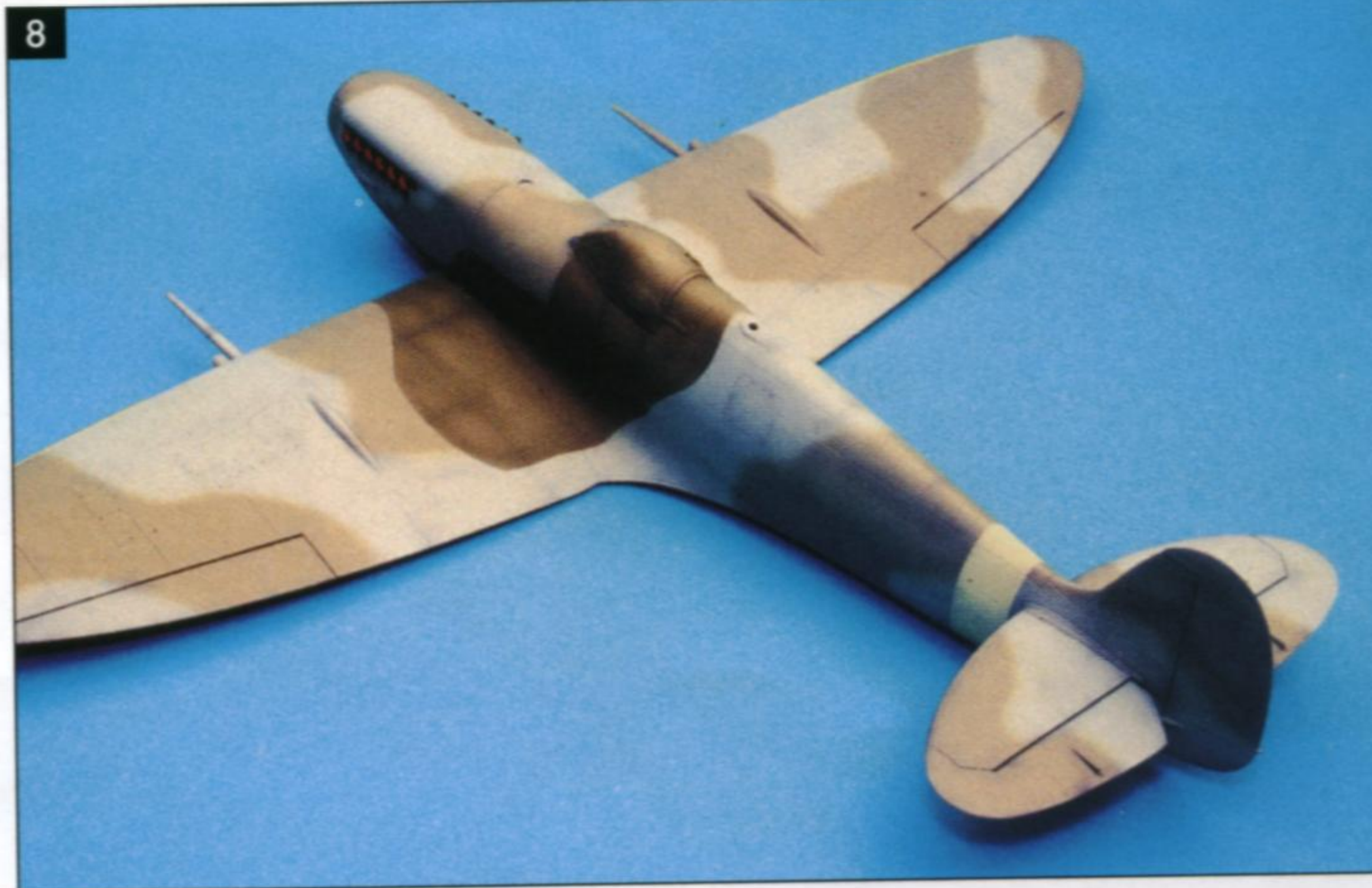
For the cockpit, the only kit parts used were the control column, (albeit modified), and the instrument panel. Before any detail was added, all the interior wall detail except the main centre longeron was removed. The Hasegawa Spitfire Mk IX supplied the lower wall panels and floor, complete with foot pedals, that had the bottom sanded away for more accurate appearance. In addition the control column had the control linkage added from 25thou rod.

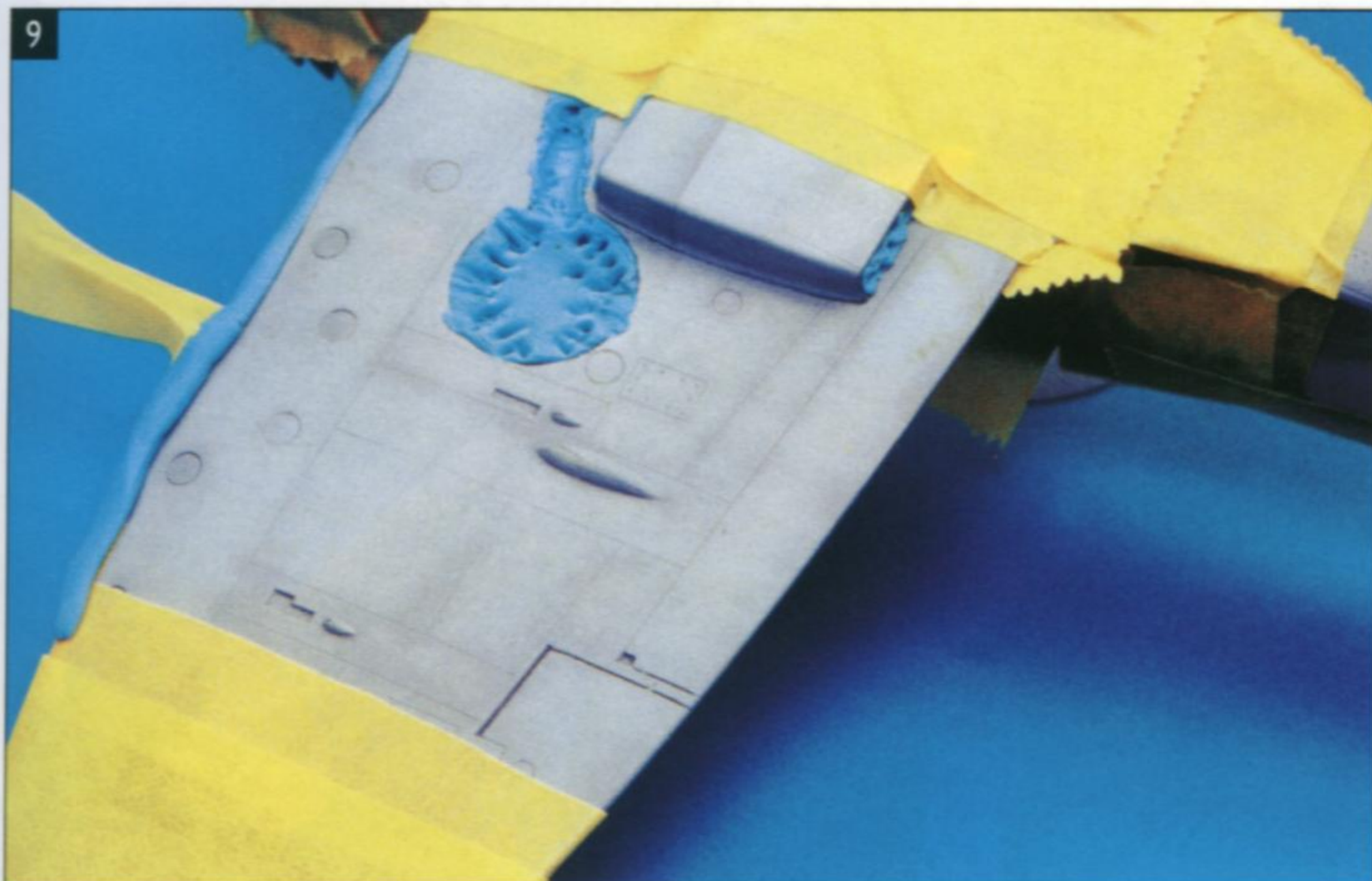
Spare parts from the ICM Spitfire Mk IX supplied the seat bulkhead, (with the bottom trimmed to fit), and seat whilst a new armour back plate was made from 10 thou plastic card and a 'Q' harness was made from lead foil and brass wire. Detail was added to the fuselage walls from plastic card and soldering wire, (oxygen hose), and the Waldron Punch & Die sets were used – see photo 1.

The entire cockpit interior was sprayed with Testors Model Master Interior Black enamel, (all enamels used are Model Master unless noted otherwise). The instrument panel face and the seat back cushion were masked off and RAF Interior Green was misted on that was then dry brushed with lightened RAF Interior Green. Most of the detail painting was carried out using War Hammer acrylics and then the interior was glossed with Tamiya X-22 Clear.

After letting this 'cure' for the better part of a week, a black oil wash was then applied to enhance the detail. The entire interior was then matt varnished with Testors Flat Lacquer. Both the leather headrest and seat cushions were rubbed with 'forehead oil' to produce a slight sheen. To give the instrument faces that 'glass' look, a drop of Johnson's Future/Klear floor wax was carefully applied.

With the interior ready and painted, (photo 2), first the aft bulkhead/seat assembly had its edges cleaned of paint and glued to the wall. I





found that some of the lower seat support was required to get a proper fit and this was held firmly in place by some plastic card struts. The instrument panel was next and this too benefited with some plastic card support. At this stage the fuselage halves were joined and glued so that the 'floor' could be added through the open underside.

Letting the fuselage 'cure' overnight, the next day saw the kit's broad chord pointed rudder removed and replaced with the standard rounded rudder from the ICM kit spares – this was a good fit. The location where the elevator arm passes through the fuselage was drilled open as brass 'arms' would be added to the elevators. At the same time the kit's fixed tailwheel assembly had the wheel and arm removed so that it could be glued into place and sanded to blend in with the rest of the fuselage, (photo 3). The fuselage was given a quick sanding down prior to the wings being fitted.

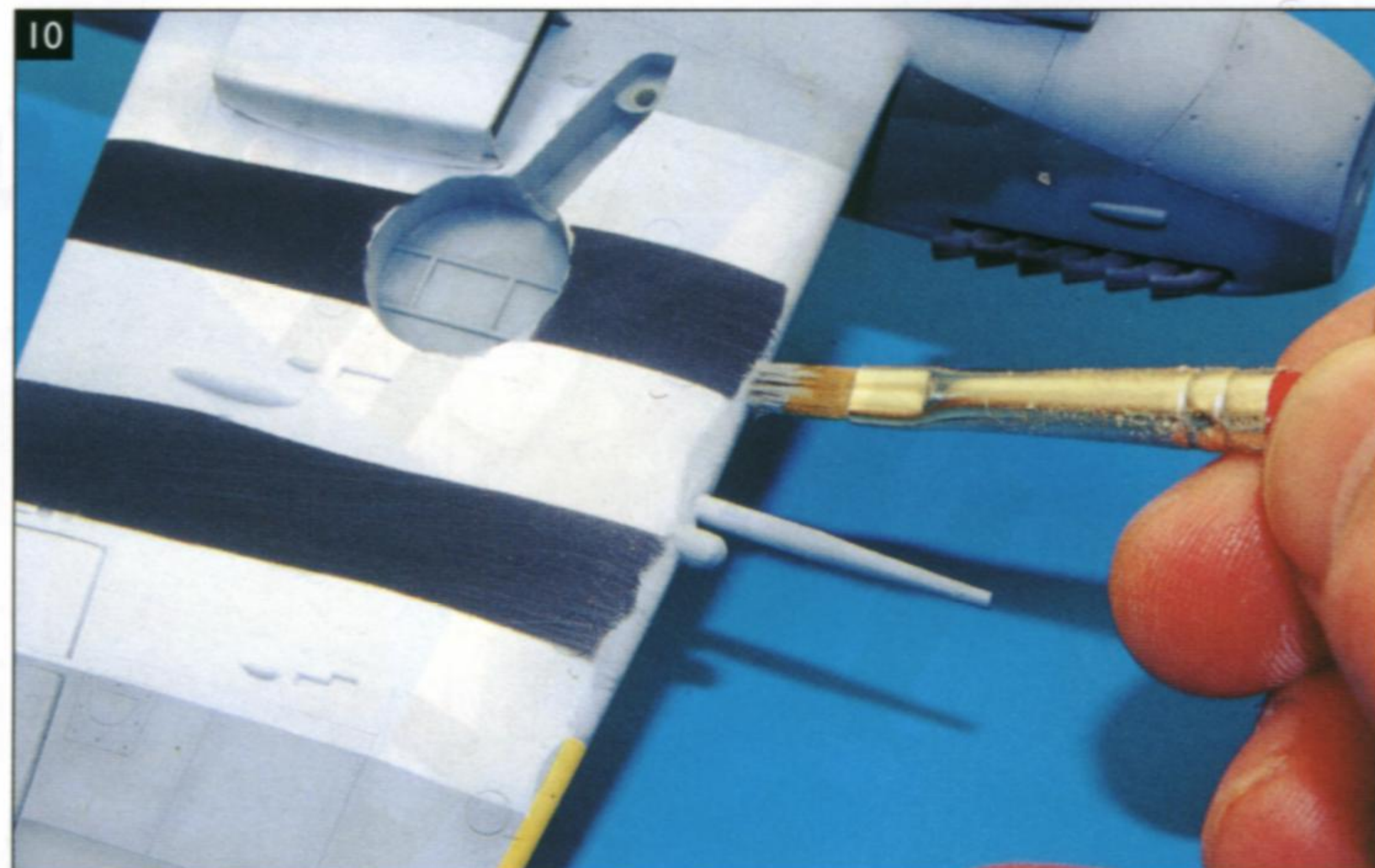
The kit wings were first glued together, left to 'cure' and then attached to the fuselage. The entire joint between the main wings and fuselage was then made pretty well flawless by applying superglue and careful sanding with progressively finer sandpaper. Due to all this sanding, some engraved detail was lost, so it was replaced using Testors Tape and a metal ruler as a guide, and rescoring with the back edge of a new No 11 blade which worked well on the kit's plastic.

The two-piece carburettor intake was assembled, the join sanded down and then sanded on its mating surfaces to fit the contour of nose centre section underside. Any minute gaps left were filled by applying Milliput White Fine Putty and running a dampened cotton Q-Tip to smooth out the join.

To improve the appearance of all the control surfaces, they were scored along the hinge lines to make them more pronounced, (photo 4). It was whilst doing this that I realised that the fabric covered ailerons were incorrect and so they were sanded smooth to make them look like the metal covered ones fitted to the Spitfire Mk IX. Some fastener heads were drilled into the gun access covers and then the tailplanes were glued into place.

Once again the spares box was raided to supply better exhaust manifolds, (ICM), and a new gunsight was made from plastic card, photo 5. Also replaced were the landing gear legs and covers, (Ocidental), and mainwheel tyres with dust covers, (Hasegawa), which look much better when finished and in place, photo 6. ICM also supplied the tailwheel and radiator matrix.

As fate would have it, the kit canopy was not in great shape or very clear. Again, the spares box had one from an Otaki boxing in much better condition. To improve it, a good polishing was carried out with Tamiya



Rubbing/Polishing Compound applied by cotton Q-Tips and then the inside was brushed with Johnson Future/Klear floor wax. Letting this cure overnight, the canopy was masked using a combination of Tamiya Tape and Demco Frisket Masking Fluid and then tacked into place using a few drops of white glue. To fully secure the canopy in location and ensure there were no gaps a bead of five-minute epoxy was used to good effect. Photo 7 shows the products used in the canopy preparation.

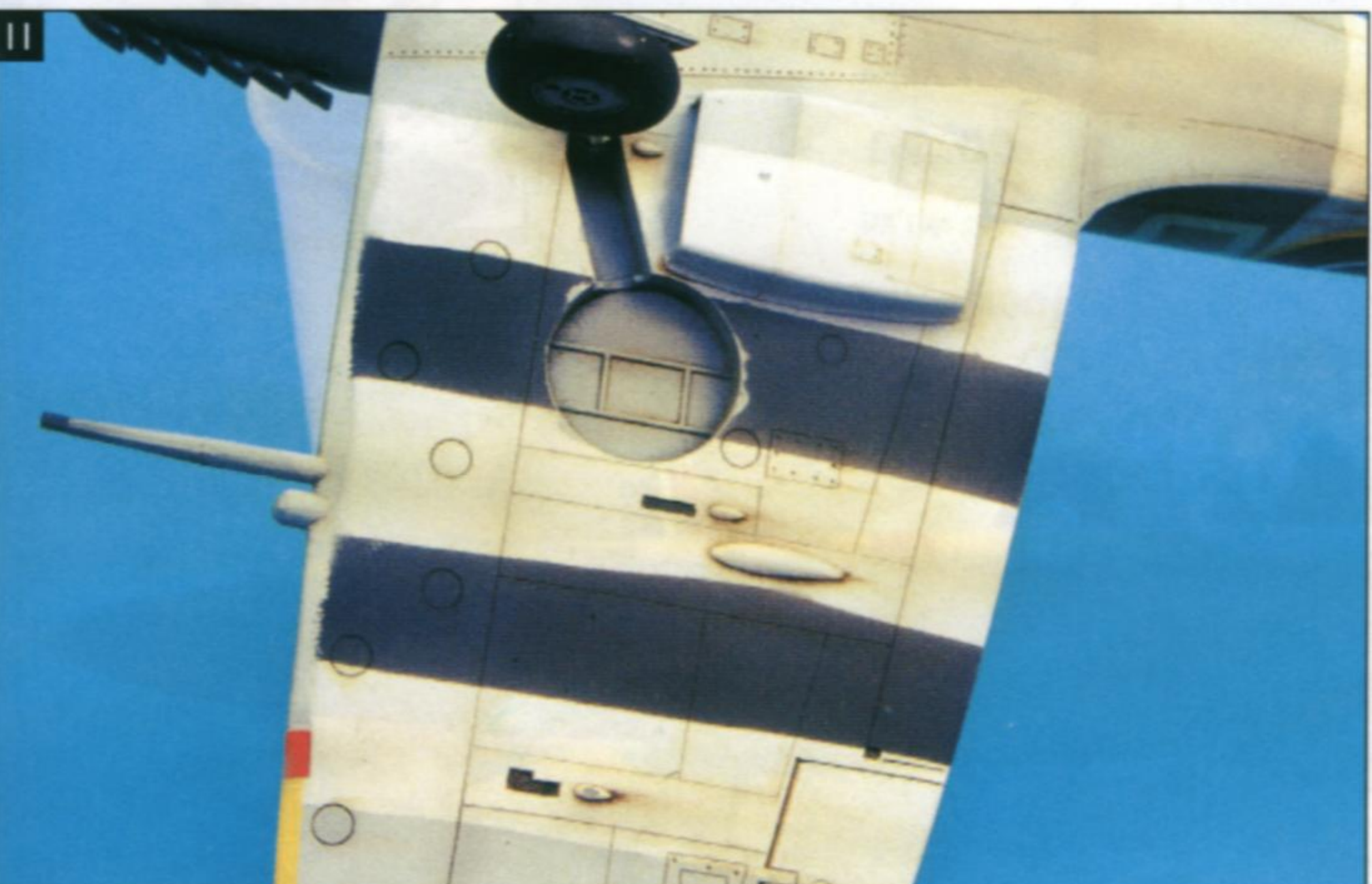
Painting

To act both as primer and also give the proper interior colour to the canopy, RAF Interior Green was used. This did show a couple of 'troubled' areas that were fixed with a small application of superglue and a quick sanding. According to the painting notes in the WaterMark Decals, 'Canadian Spitfires D-Day', decal sheet 48003, Fg Off Weeks 'Y2•D' had a new application of Dark Green, (shown around the port cockpit area on the decal sheet paint guide), that produced a two-tone illusion. As this 'new' Dark Green would be represented straight out of the bottle, the other two greys, (ie Ocean Grey and Medium Sea Grey), and the 'other' Dark Green, would have to be faded to show a contrast. In addition while the upper camouflage pattern would be sprayed on 'free hand', the 'fresh' Dark Green would be masked to create a 'hard edge' demarcation. To accomplish this RAF Medium Sea Grey, Ocean Grey and Dark Green were mixed with some white and stored in separate labelled containers. In photo 8, although the Dark Green looks a little too dark, by the end of the project it blended in a little better.

The under surfaces and associated parts were sprayed in the 'faded' Medium Sea Grey and when dry, pre-shaded with Interior Black. More 'faded' Medium Sea Grey was then misted on until the desired finish was reached. To further vary the finish, random panels were masked out, had the edges sprayed in Interior Black, and then oversprayed with the faded Medium Sea Grey whilst other panels were masked a sprayed with the 'straight' uncut Medium Sea Grey.

The lower surfaces were masked out and the top was sprayed 'faded' Ocean Grey and 'faded' Dark Green, free hand. However the faded Dark Green dried too light so had some more 'uncut' Dark Green added and resprayed – although perhaps it was still a tad too light? The 'fresh' Dark Green area was masked out, based upon the decal sheet instruction drawing and, using reasonable assumption, the adjoining wing surface was similarly masked out, and sprayed with the 'fresh' Dark Green.

Next, the areas around the exhausts were masked out and the latter





were painted Interior Black followed by a misting of Rust to weather them. The final two areas to be painted were the yellow leading edge strips and the rear fuselage Sky Fighter Command i/d band. Both areas were masked and pre-shaded before the colours were applied. With the base painting completed, the D-Day 'distinctive markings' could now be added.

Whilst these hastily applied recognition markings looked neat and straight from a distance, close-up photos reveal the opposite! To better reflect this reality, a somewhat different approach was taken to simulate the effect. Whilst using tape as a masking agent, the edge sides were cut free hand so they were not perfectly straight. Some Blu-Tack was used as an uneven mask for the leading edges, the wheel wells and the radiators, (see photo 9).

The white was applied first followed by the black using a scale 18 inch spacing as a 'guide'. To better reflect the uneven front edge of the leading edge, this was roughly brushed with a square-tipped brush using the 'faded' Medium Sea Grey, (see photo 10). However, the fuselage line was left straight as it appears that the ground crew might have used a panel line as a guide. In finishing, this area received some heavy weathering to reflect the heavy use these Spitfires were put through. (Photo 11).

Then the entire model was glossed using Tamiya X-22 thinned with about 50% Tamiya thinner, (photo 12), that prepared the model for the decals and wash application. This coat was left to 'cure' for the better part of a week and then the WaterMark 'Canadian Spitfires D-Day', sheet 48003 decals were applied using the Micro Set/Micro Sol combination. On the sheet, the decals do appear thick, but they settled in very nicely although they had yellowed somewhat over the years.

Final touches

A Raw Umber wash was applied to all the engraved lines whilst 'dabs' of this were left on select locations on the underside and left to 'sit'. After a short while they were 'dragged aft' to create some serious weathering that is reflected in photographs on these well-worked aircraft. Further

weathering was applied using Tamiya Smoke thinned by about 50% and misted on using a low air pressure. This took time to build the 'colour' up; however, it did allow complete control of the process and hopefully the finished effect reflects this, (photo 13). Some minor paint chipping was carried out with a Prisma silver pencil whilst the exhaust stains were simulated with some thinned black enamel.

The masking was removed from the canopy, which was polished again and then the pitot tube, radio mast, mainwheel tyres and tail-wheel, which were pre-painted and weathered, were glued into location. All three exterior light locations received a dab of Humbrol 11 Metallic Silver and when dry Model Master Stop Light Red Metallic was applied to the port navigation light whilst the starboard light received Model Master Oldsmobile Engine Blue. The final job was to add the antenna wire, from stretched sprue.

Conclusion

By raiding the spares box and going with a closed canopy, a surprisingly acceptable looking Spitfire Mk IX was produced 'on the cheap'. The biggest improvement to the finished model was the greatly improved look of the ICM exhaust pipes, whilst the combination of Ocidental and Hasegawa undercarriage gear are a close second. **AM**

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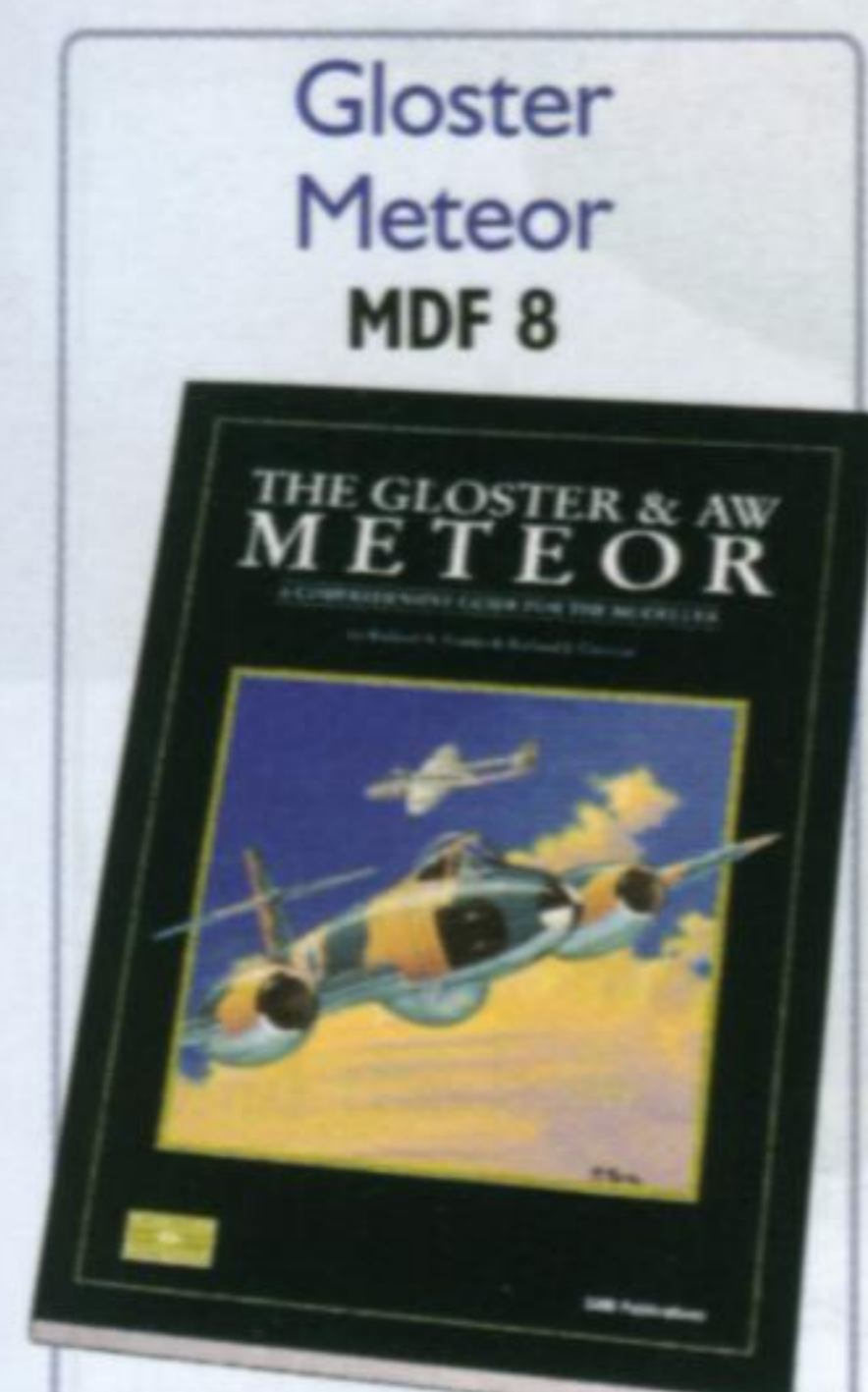
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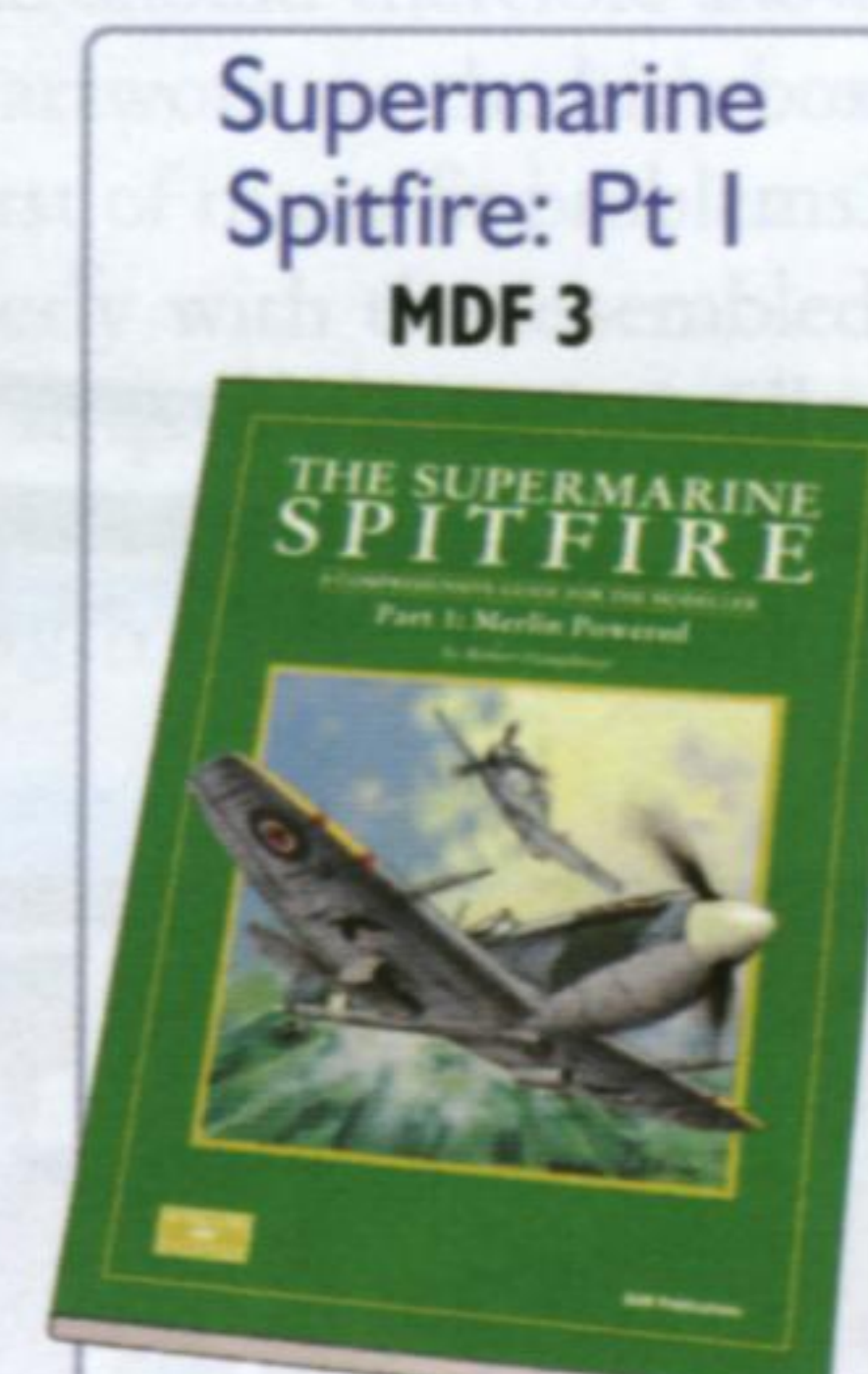
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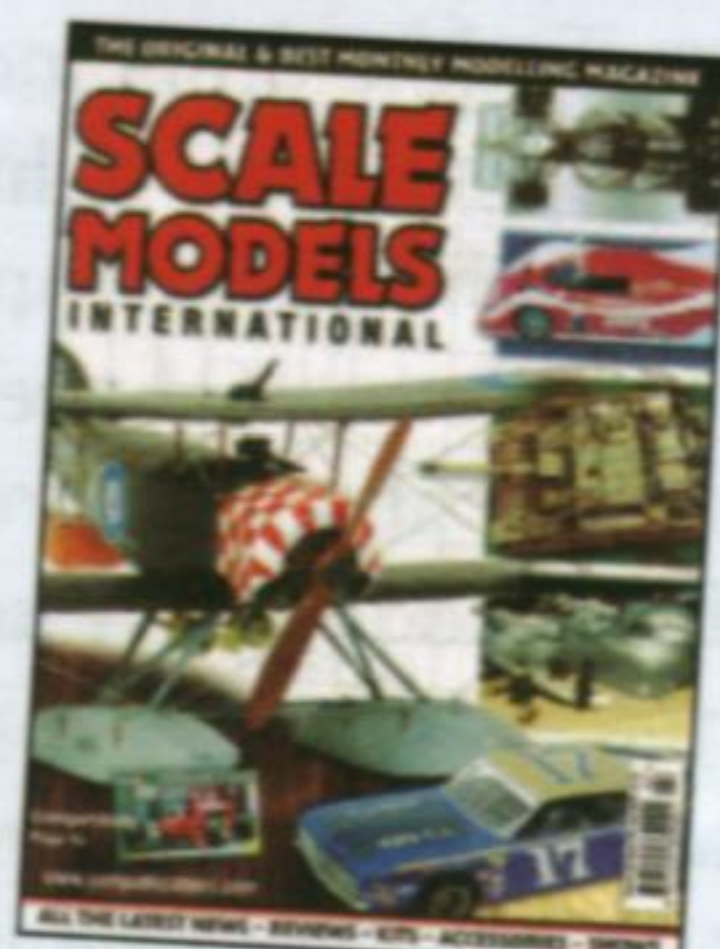
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Japanese 'Judy'

Randy Lutz builds the Fine Molds Yokosuka Kugisho D4Y3 Suisei 'Judy' of the 601st Kokutai, Hyakurihara Naval Air Base, at Ibaragi Japan, 1945

■ THE D4Y *SUISEI* (COMET), ALLIED CODE NAME 'JUDY', was designed as a fast carrier based dive bomber, ostensibly to replace the ageing Aichi D3A2 'Val', of which by late 1944, the few that were still in service, were mostly relegated to the *kamikaze* role. The original D4Y design specification of 1937 insisted upon a two-seat dive bomber, which was to be as fast as the A6M 'Zero' single-seat fighter and powered by a liquid-cooled inline engine.

The in-line engine was selected as it was felt that it offered the lowest possible drag and would therefore provide the best opportunity to meet the stringent demand for high speed. However, the Atsuta 12 cylinder in-line engine, (basically a license-built Daimler Benz DB 601G), had proved to have a less than spectacular service history when fitted in Japanese aircraft designs.

None the less, the D4Y1 Model 11 and D4Y2 Model 12 were produced with the in-line engine and despite being plagued with servicing and maintenance problems, undertook active operations in the Marianas in June 1944 and in the defence of the Philippines in late 1944, but, despite being the fastest carrier-borne dive bomber in service during World War Two, they were decimated by the numerically superior US Navy CAP fighters.

In May 1944, the Atsuta in-line engine was substituted for the more reliable Mitsubishi Kinsei 62, 14-cylinder radial engine, drawing upon experience with the Focke-Wulf Fw 190A, which provided the design

inspiration for the engine conversion. Enclosed within a tight-fitting streamlined cowl, the Mitsubishi Kinsei 62 gave an almost identical performance to the in-line engined D4Y2 and eliminated the majority of the problems with previous versions of the 'Judy'. Designated D4Y3 Model 33, the radial engined sub-type continued to be produced until the end of the hostilities.

Modelling the 'Judy'

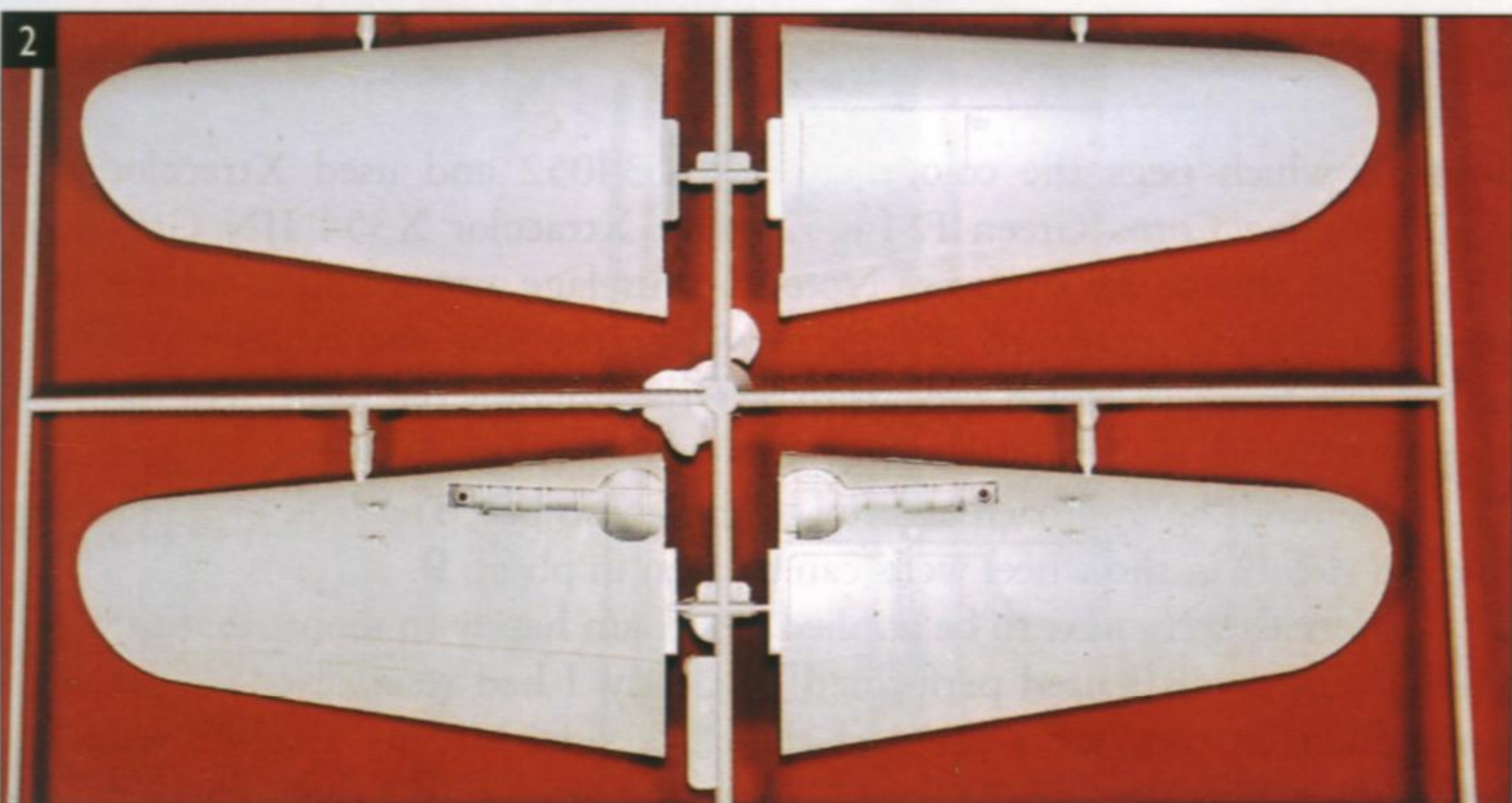
The 'Judy' is a favourite subject of mine and one I have long-wanted to build. I had three versions of the kit and the biggest challenge was deciding which one to assemble. Ultimately, I decided to build the D4Y3 Model 33 radial engine variant, (photo 1), as I have rarely seen that particular version built. In fact, I have never seen a 'Judy' of any kind on the competition tables in all the model shows I have attended over the years. No doubt there is a reason for this – and I was about to find out why!

In the case of the 'Judy', I found the name 'Fine Molds' to a bit of a misnomer, as the kit is an eclectic mix of recessed panel lines on the majority of the airframe, with some raised lines on the fuselage. It suffers from mis-moulding, poor fit, inconsistent scribing, simplified, minimal detail and wheel wells that are far too shallow. The clear parts are really not all that clear and no amount of polishing would improve their clarity. It would appear that the slight haziness was something deep in the plastic and not superficial. In addition, the clear parts are quite thick and exhibited considerable flash. An overview of the kit's contents is illustrated in photos 2 to 5.

One of the first things I do with any aircraft kit I model, is to clean up all the parts and perform any detailing steps, such as drilling out gun barrels, landing gear torque links and adding any airframe lightening holes that may be required. Adhering to that philosophy, part E15, which is the rear machine gun mount, was detailed as per photos of the real thing and the rear machine gun barrel was drilled out. I also drilled holes in the engine for the ignition wires, which would be added later and hollowed out all the exhaust pipes.

As with most kits, the construction starts with the cockpit areas and it is at this time that I had to make a choice as to how the rear gun was to be mounted. Depending on the positioning chosen, the rear seat, (part E10), will either be glued to the gun mount facing to the front, or to the rear. This then impacts on how the Type 97 Mk 1 drift sight is mounted.



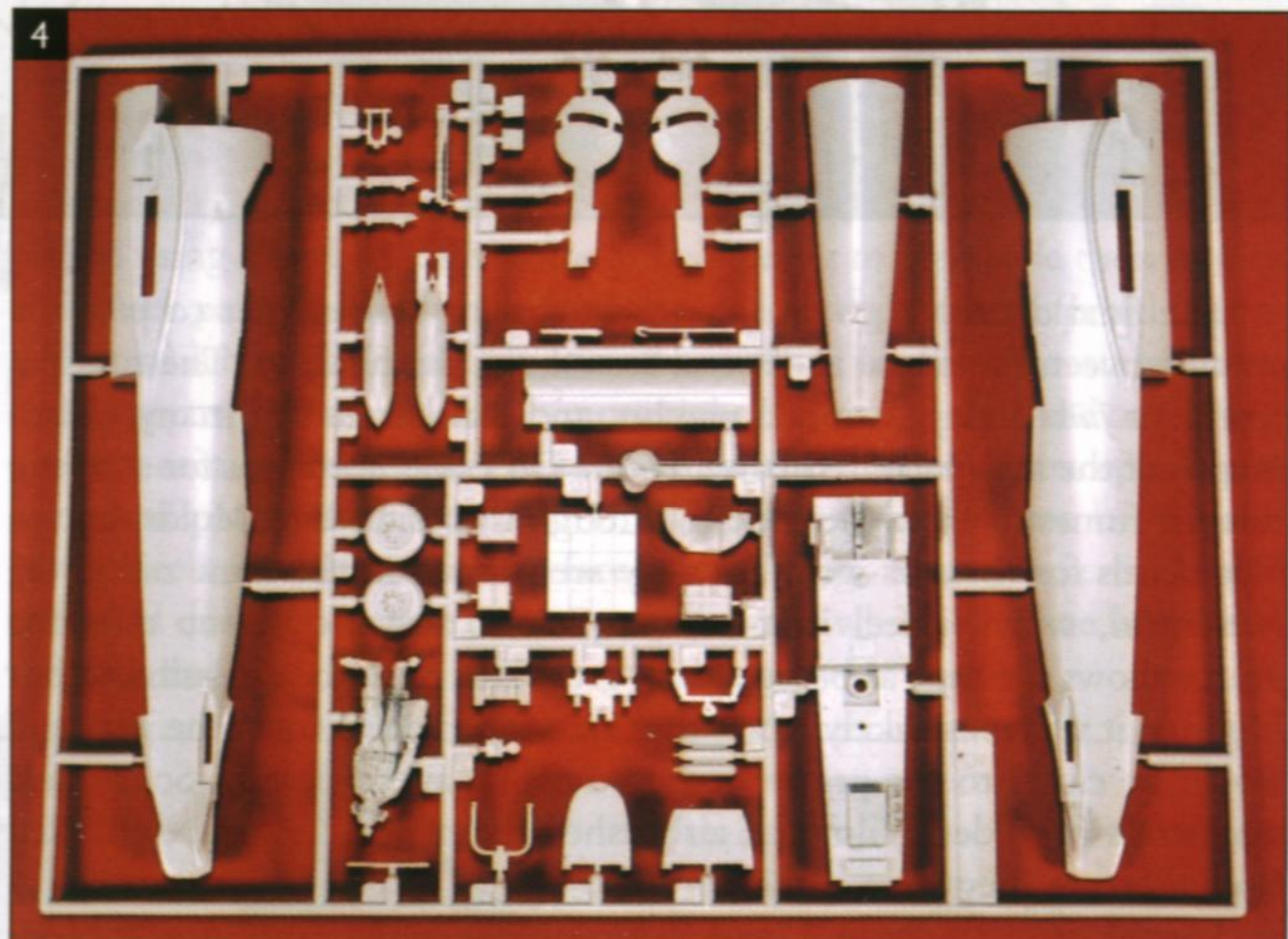


I opted to have my gun in the stowed position, with the rear gunner facing forwards and the drift sight mounted to the floor, extending down behind the bomb bay, for no other reason than it seemed to match the photo I had of the particular 'Judy' I was modelling.

Fine Molds makes reference to the Mr Color Line of paints and suggests an interior colour of IJN Green (Nakajima). From this, I could not determine if they meant an exterior Nakajima Green or an interior Nakajima Green. In an attempt to clarify this colour conundrum, I referred to the Monogram book on Japanese cockpits. They listed the interior colour as a match to Pantone 5747C. Looking through my Xtracolor paints, I found that X28 Royal Navy Helicopter Olive Drab was an excellent match to 5747C and with paint in hand, all of the basic interior parts were airbrushed in X28 and given a dark wash made of a mixture of X28, black oil paint and turpentine.

Once the wash had dried, I dry brushed the interior with straight X28. A coat of Testors Dullcoat followed this and then I dry brushed the interior parts with a mix of X28 and a small dab of white oil paint. The interior was then dry-brushed a second time with an X28 and white paint mix, but with a little more white added. Finally a third dry-brushing was applied using still a little more white in the mix.

The various boxes and radio gear were finished in Testors Chrome Black with a grey dry brushing to pick out the details. I fashioned the throttle and mixture levers from scraps of photo-etched frets and small drops of white glue. As rudimentary as I found the cockpit to be, I was

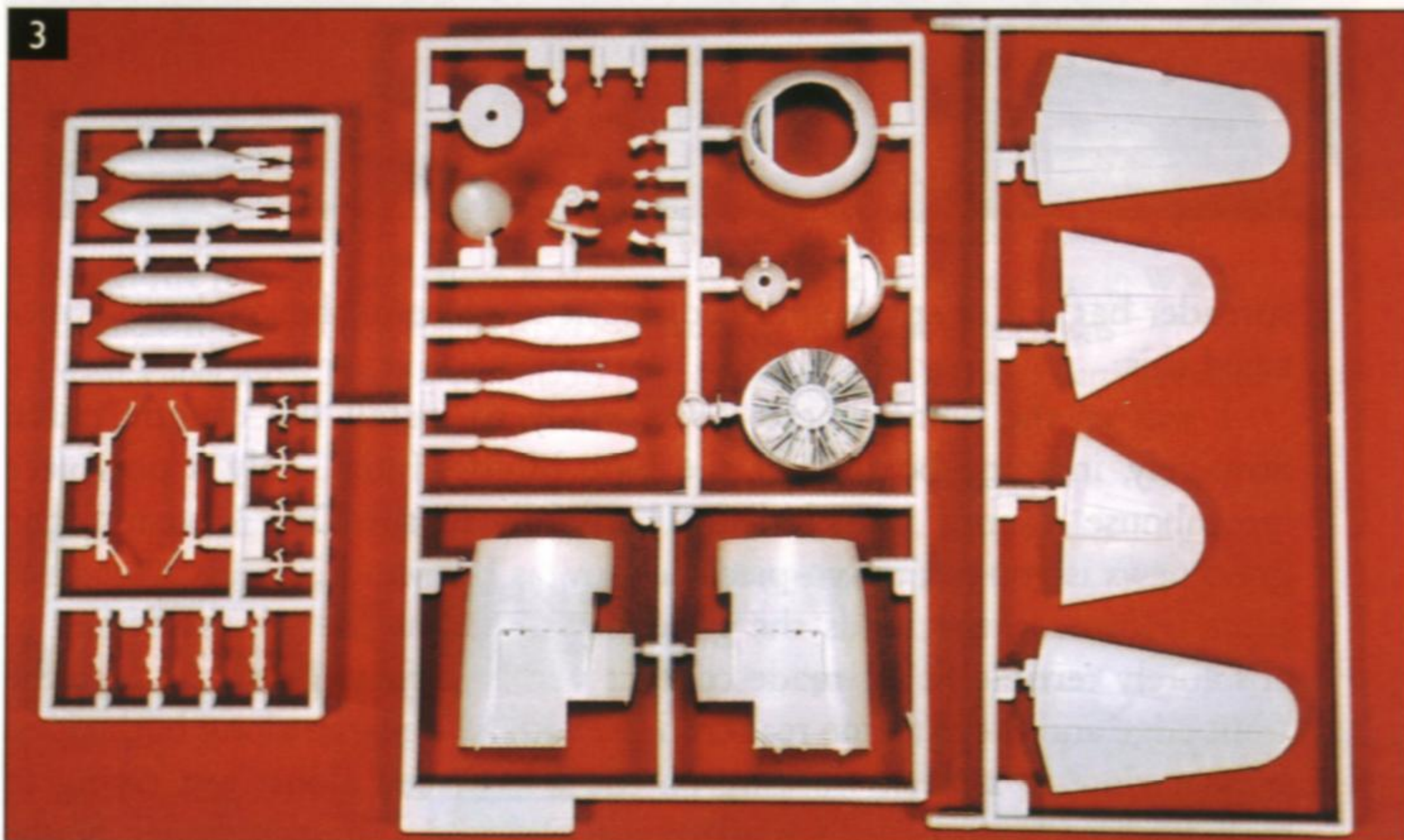


really disappointed with the instrument panel. Fine Molds have moulded it as a featureless smooth piece of plastic, with no attempt at simulating any dials – a decal is included for this. Whilst I was not overimpressed by this approach, the end result is acceptable, (see photo 6). The final detail to be added to the cockpit was a set of Eduard photo-etched seat belts, which were painted using Testors Leather and dry-brushed with a lightened mixture of the same colour, (photo 7).

The bottom of the cockpit floor is actually the roof of the bomb bay and whilst Fine Molds call out for that nebulous Nakajima Green, I opted to finish mine in *Aotake*. Xtracolor makes a fine *Aotake* paint, but I feel it is too opaque and wanted my bomb bay to look more like it had received just a cursory coat of paint. I first airbrushed the bomb bay and the insides of the bomb bay doors with Alclad Duraluminum. I then mixed some Xtracolor *Aotake* with varsol in a ratio of one-part paint, to about 10 parts varsol and proceeded to airbrush this mixture over the Alclad. This was applied at very low air pressure, somewhere around 5 psi and allowed to puddle in cracks and corners and around rivet detail. It

was so thin that it naturally ran into low areas and crevices and pooled around high points. Once dry, it did a fine job of reproducing the look of thinly applied *Aotake*.

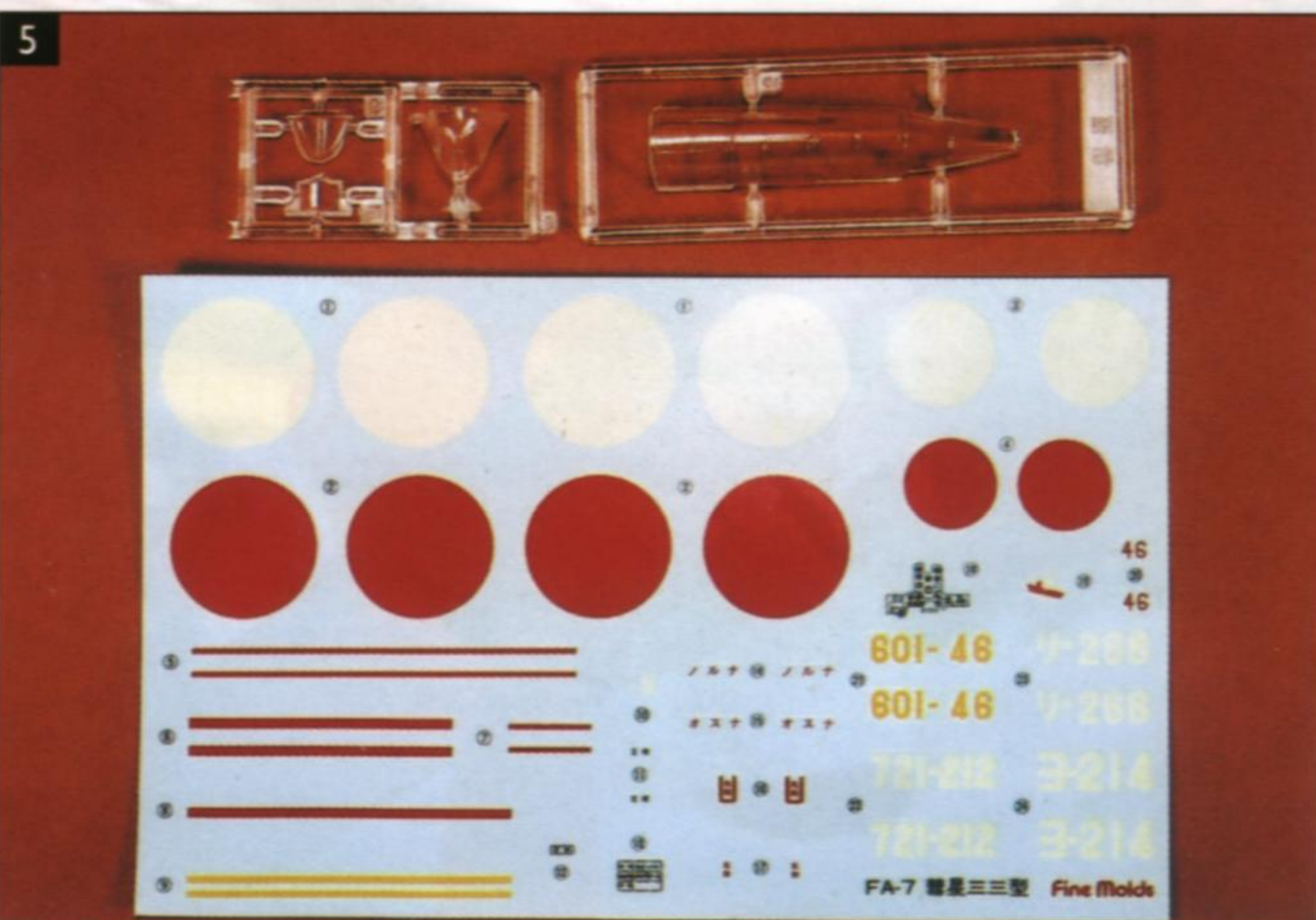
I closed up the fuselage, trapping the cockpit/bomb bay unit and prepared to install part B3, which is the rear bottom part of the fuselage. On the real 'Judy', this area was made from wood and should therefore show no panel lines or fastener detail, (contrary to the artwork on the kit's box top!). It was at this time that I encountered the first of many fit problems. Part B3 is too short and too wide to mate properly with the assembled fuselage. I had to add a 30 thou piece of plastic strip at the rear to fill a gap where it met the fuselage just in front of the tailwheel. Once that was done, I had to sand down the edges along the length of the part where it met the upper fuselage.



Next, the parts comprising the upper and lower halves of the wings were assembled – after removing a considerable amount of flash – and when it came time to marry up the wings and fuselage, I encountered fit problem number 2. The tabs on the wings are a little oversize and require trimming to get the wings in place. In addition, once installed, the wings will not seat tightly against the fuselage wing fillets and tend to rock up and down as a result. Using an X-acto 10 blade, I scraped down the mating surfaces of both the wings and the fuselage to give each area a concave surface. This removed the high spots and allowed the wings to mate to the fuselage without the need for any filler.

The rear flying surfaces were next and again I encountered fit problems. The fin was the first to be installed and it suffered from considerable mould shift, as one side of the fin would meet the fuselage perfectly whereas the other side had a huge gap. Again I resorted to scraping with the X-acto blade to level the mating surfaces. I had the same problems with the tailplanes, but finally managed to get them installed and level without the need for any filler.

The engine was next and it is a rather rudimentary affair. I guess the only saving grace with the engine is that not much of it can be seen once the propeller and spinner are installed. None the less, it was detailed with ignition wires fabricated from lead fishing wire, (photo 8), and installed between the cowl halves. However, when I tried to fasten the engine cowl assembly to the fuselage, I hit upon another fit problem, which thankfully was not as bad as all the others. The cowl is too narrow from a point in line with the canopy sill, down to the wing root. Fabricating a





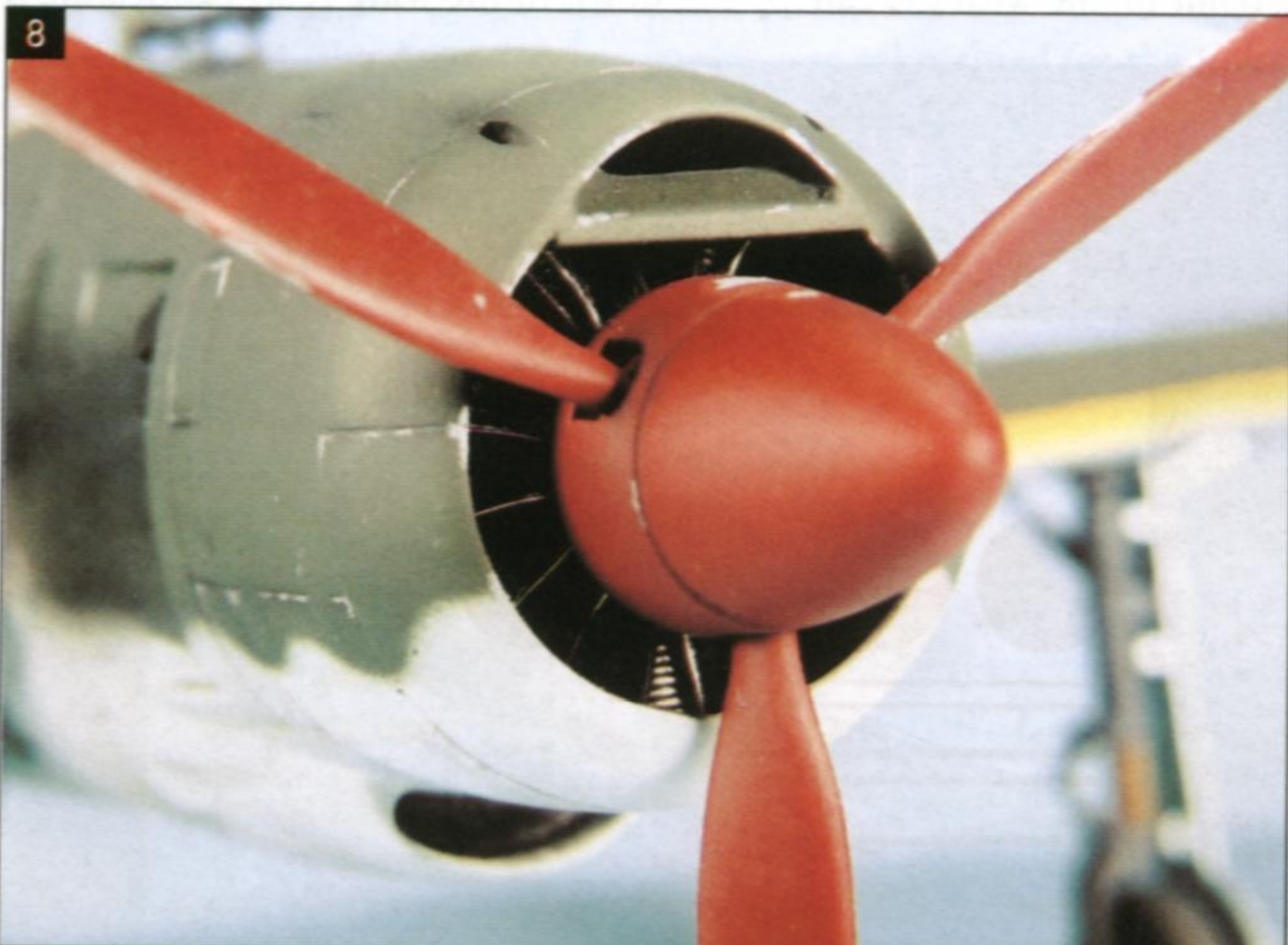
spreader bar out of sprue and wedging it in place in the cowl easily rectified this.

I was at the point where I was ready to install the canopy parts. Strangely, in some boxings of the Fine Molds 'Judy', only a one-piece 'greenhouse' canopy is included. Thankfully in the D4Y3 boxing, the good news is you get a two-piece canopy, as the windscreen is a separate piece. However, that ends the good news part, as the windscreen is an absolutely terrible fit! It made contact with the fuselage at the extreme front edge and the extreme rear corners, with a huge gap along both sides. I spent close to a week working on the windscreen alone, just trying to seat it properly and blend it in to the airframe. The remainder of the 'greenhouse' was far easier to fit, but I cut off the pilot's sliding hood and vacuformed a replacement so that it could be fitted in the open position. After all, I just had to show off that featureless instrument panel...!

After a quick shot of primer to check for blemishes on the bodywork, the model was ready for painting. The canopy was masked using 3M tape and a disk of cardboard was cut and used to protect the engine from overspray. The first colour to be applied was Xtracolor X11 RAF Trainer Yellow. This was airbrushed along the leading edges of the wings for the identification bands. Note that on the later variants of the 'Judy', such as the D4Y3 and D4Y4, the yellow band was much thinner than on the earlier sub-types, which had the yellow extending far enough back to cover part of the undercarriage doors.

Next, using a mixture of Xtracolor X103 Insignia Red FS11136 and Testors Chrysler Engine Red, I painted where all the *Hinomarus* would be placed as well as the wing walk areas, fuel filler caps and the red stripe across the fin. Fine Molds do provide decals for all these yellow and red markings, but I prefer to paint my own basic markings and stripes wherever possible. Once dry, all these areas were masked off, again using 3M tape and it was on to the camouflage colours.

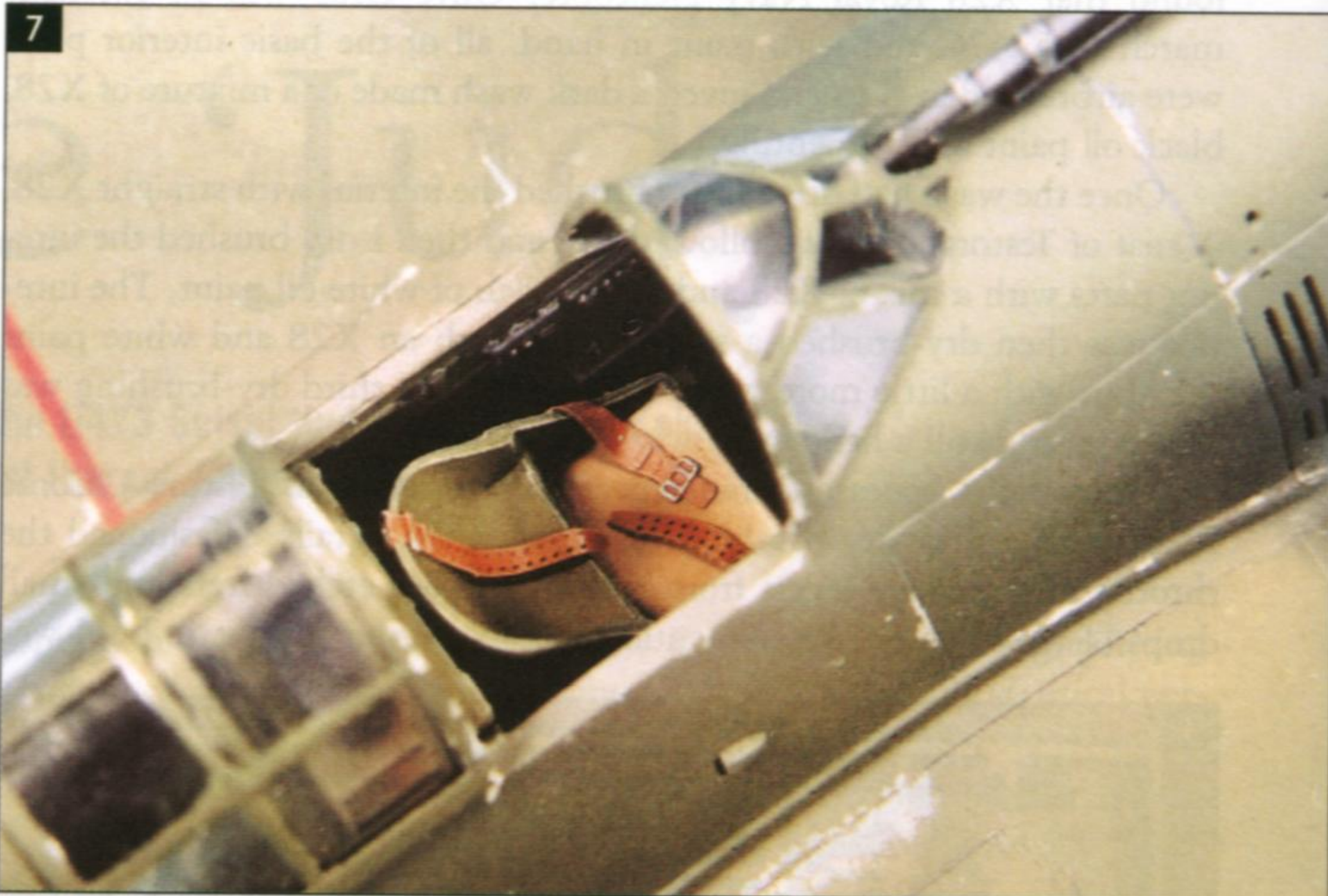
At this point I found that there was no real consensus on the upper surface colour other than it is often quoted as being 'oily green'. Depending upon which publication you read, you will get slightly varying opinions on the accepted FS number for this topside green colour. One thing however, that does remain consistent is the terminology 'oily green'. I opted to follow the FS recommendation in Vol 4/Number 3 of the ASAHI



Journal, which pegs the colour around FS34052 and used Xtracolor X109 Marine Corps Green FS14052, with Xtracolor X354 IJN Grey applied to the under surfaces. Note the fuselage upper/under surface demarcation line composed of small waves on the nose and larger waves on the rear fuselage, which appears to be rather unique, the 'Judy'. For the main gear wheel wells and the inner face of the landing gear doors, I used the same painting approach as I did in the bomb bay. The look of thinly applied *Aotake* in the wheel wells can be seen in photo 9.

The decals were next to be applied, and I am happy to report that the Fine Molds decals I used performed flawlessly. I had reservations about using them as they are a little on the thick side, but my fears proved unfounded. This step was followed by the application of a medium grey wash in all the panel lines on the underside and a slightly darker grey/green wash on the topside. My washes are a mix of Winsor & Newton Ivory Black and Titanium White oil paint, turpentine and whatever colour of paint the wash was going on.

Once the wash had 'set' – for about a day – I removed any excess with a scrap of lint free cloth, (ie an old T-shirt), slightly dampened with varsol. The good thing about painting with Xtracolor is the gloss finish that will allow you to apply the washes – as long as you are not too heavy handed with the turpentine. I find Xtracolor enamels to be an excellent paint. They dry gloss, which eliminates the need to apply a gloss coat before decalling and there is an extensive range of colours.

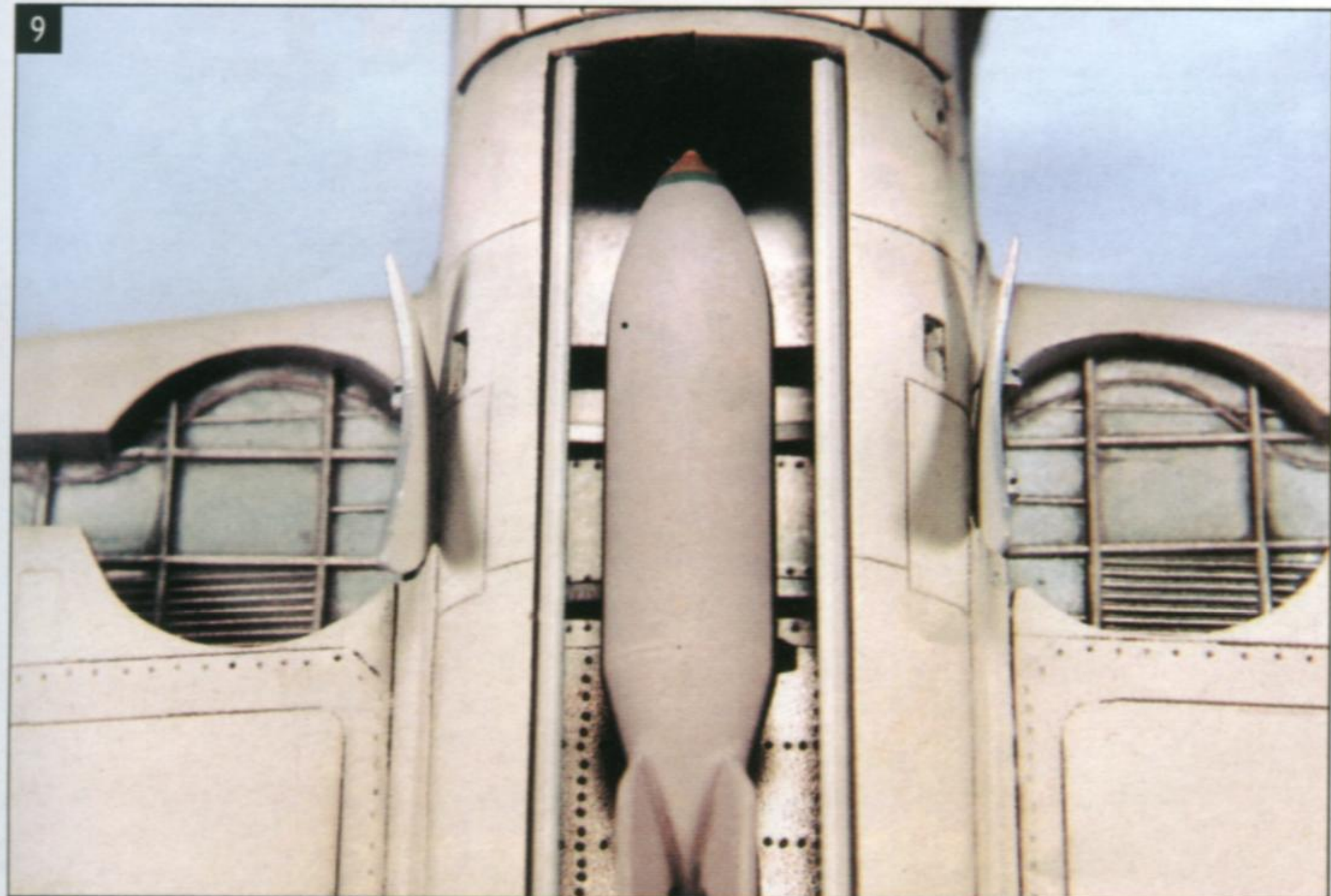


The final decals to go on were the two long stripes that covered the seam between the metal and wood sections of the fuselage. These stripes represent *fume* tape, or doped patches and can be seen in many photographs of the real 'Judy'. Apparently, the D4Y was notorious for allowing exhaust fumes to enter the cockpit through this joint. Fine Molds do provide decals for these as well, but they are printed in the same red as the *Hinomarus*, which I feel is incorrect. Colour artwork in one reference source shows the tape as being a dark grey. This could be a possibility, but I figured it was most likely fabric that was doped on to cover the joint and would be closer to the primer red used on Japanese aircraft. So, I made new strips from decal film and airbrushed them with Gunze No 47 Red Brown before they were applied.

For the paint chipping, I made a mix of silver enamel, Winsor & Newton Raw Umber oil paint and turpentine, applied using a 000 brush. The Raw Umber tones down the garish look of the silver and the turpentine keeps the mix from getting so thick that it seems to be sitting *on top* of the paint. A few coats of Testors Dullcoat were airbrushed on, until I had achieved the desired sheen. Then I was at the stage in the model finishing that can make or break a model, or at least could lead to a total repaint, namely, airbrushing the exhaust staining.

For this step, I used Xtracolor X504 Exhaust, which was heavily thinned and applied at low pressure. The 'Judy' had a distinct exhaust pattern from the two top exhaust pipes, in that the gases come out of the pipes and curve downwards at about a 45° angle and then swoop upwards as they are exposed to the airflow.

The landing gear was next to be tackled and in comparison to the rest of the model, it could be considered a breeze! The leather gaiters that cover the oleo portion were airbrushed with Xtracolor X379 FAR Chamois, (can you tell how much I like Xtracolor enamels), followed by a brown wash and tan dry brushing. The gaiters were then masked off and the gear struts were airbrushed with Testors Black Chrome, followed



by a light grey dry brushing. The tyres were first airbrushed matt black, followed by Testors Rubber on the sidewalls. They were then dry brushed three times, working from a very dark grey, down to a light grey, whilst the hubs were finished in Testors Metalizer Steel.

Care and a slow setting superglue were the best tools to have when installing the undercarriage legs as the fit was rather sloppy and it would have been easy to get the angle wrong because of it. The completed landing gear can be seen in photo 10, but what cannot be seen is the area between the spokes on the wheel hubs which I very carefully painted black, and which is invisible once the gear doors are installed!

I was now on the home stretch and all that the model needed to bring it 'to life' was some chalk pastel weathering. Using an artist's blending stump, dark grey was applied to all the panel lines on the upper surface which run in the direction of flight. The pastel was then blended into the model by using a number of different sable brushes. I applied a green pastel, which was a bit lighter than the upper surface green camouflage paint, to all the panel lines which run perpendicular to the direction of flight, and streaked the pastel back using a broad sable brush. A little dark grey was dusted into the middle of each exhaust stain and small amounts of black were dusted around the gun barrel openings in the cowl and the shell ejection ports. A dark grey was scrubbed into the low areas of the fabric control surfaces and a lighter green was applied to the ribs of the control surfaces.

Hopefully, in the accompanying photos of the finished model, the variations in the camouflage colours can be discerned, all of which were accomplished using pastels. I know some people prefer to pre-shade their models with black paint, but I find the final impression tends to look forced or contrived and is not subtle enough. It is all a question of personal taste of course and I suppose one method is no more right, or wrong, than the other.

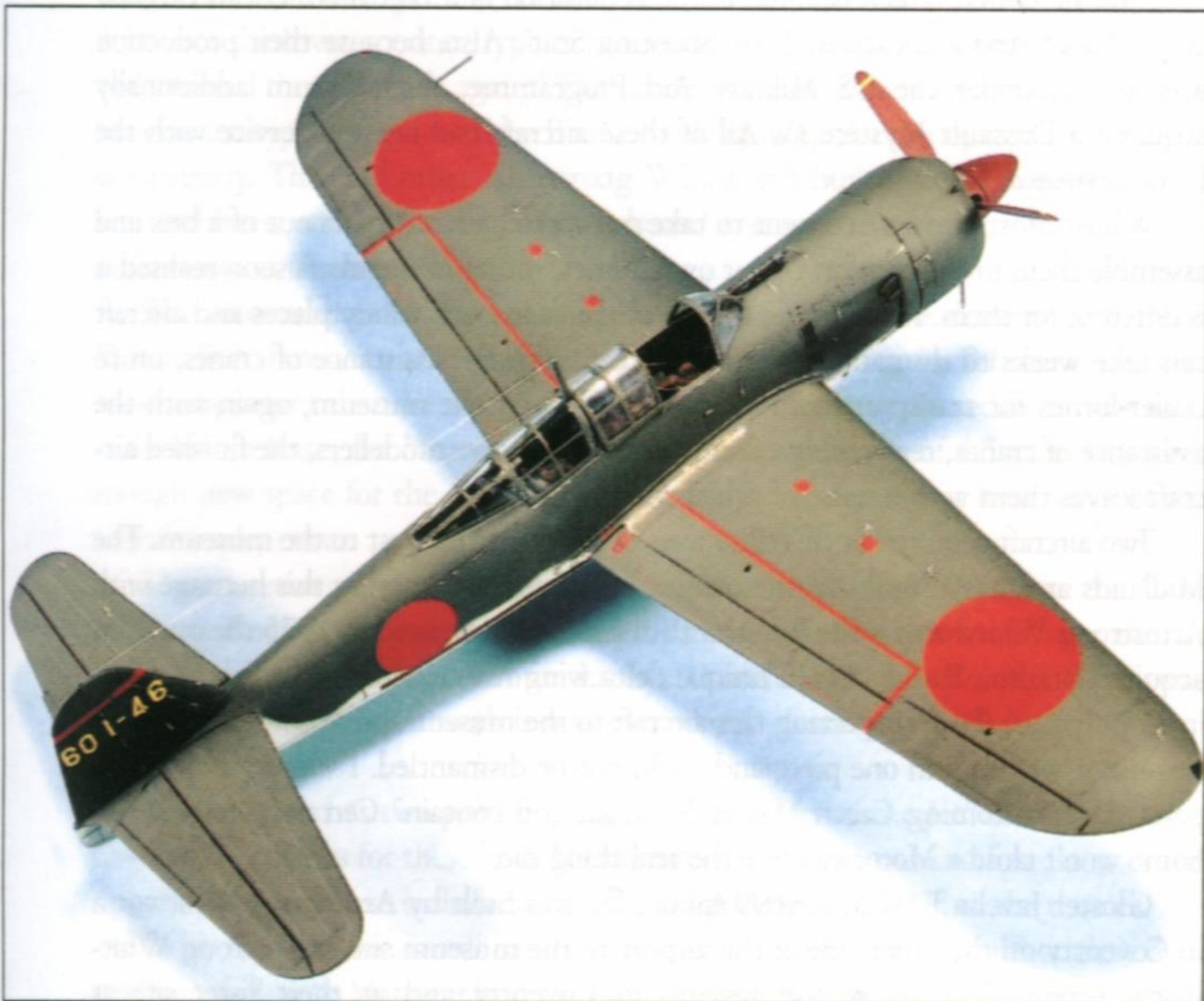
This same methodology was used on the underside, except all the colours of pastel used were lighter. Finally I scrubbed some brown and grey pastels into the upper surface of the wing, where the crew would walk and dusted on some brown pastel on the wheels and the bottom of the gear doors.

With the painting of the wing tip navigation lights in Humbrol Crimson and Xtracolor X320 Air Canada Teal Green and the installation of stretched sprue antennae wires, I had a comparatively rare D4Y3 *Suisei*, finished in the markings of the 601st Kokutai, based at Hyakurihara Naval Air Base, Ibaragi Japan, in August 1945, for the display case.

Having overcome all the construction hurdles that are inherent in it, I now understand why so few kits of the Fine Molds Judy are ever built! Whilst I am generally happy with the results of my completed model, I feel that it could be a very trying, or discouraging, kit for some modellers. I guess the model can be considered quite primitive when compared to the state-of-the-art models now offered from Tamiya and/or Hasegawa, but kits of D4Y *Suisei*'s are hardly 'thick on the ground' and I think I derived a higher level of satisfaction from completing something a bit more challenging than the oft-quoted 'shake and bake' kits. **AM**

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Midland Air Museum

Ray Ball describes the exhibits in the Coventry-based Midland Air Museum

IF YOU ARE LIKE ME, A TOTAL AVIATION PERSON, (TAP for short), then real aircraft hold as much interest to you as models and model making. Of course they never have the detail or accuracy of models and their paint schemes and colours are hopelessly wrong, but, they do hold a fascination that probably led us to our modelling hobby in the first place.

When I embark on a modelling project, in true 'logical thinker' style, I like to surround myself with suitable references, gather the facts, plans and photographs, to get comfortable and confident that I can build a half way decent representation of the real aircraft. There is always a sense of achievement when you know your completed model 'looks the part' and is, in essence, the real thing in miniature.

However, the best source of reference you can have is access to the real aircraft and in this, some of the best resources we have are our local Aircraft Museums. In this country we are fortunate, not only to have the excellent Royal Air Force Museums at Hendon and Cosford and the Imperial War Museum at Duxford, but a number of smaller aircraft museums, housing impressive collections of aircraft and aviation-related exhibitions throughout the country. Often, these are run by a small dedicated team of staff and volunteers, who like us, share an interest in aviation but who prefer to work in 1/1 scale. One such museum is the Midland Air Museum at Coventry.

Midland Air Museum

Situated alongside Coventry Airport at Baginton, the first thing you notice when approaching the site is the nose of an Avro Vulcan peering over the fence as you pull into the car park (photo 1). Entry into the Museum is through the Sir Frank Whittle Jet Heritage Centre and once on the site, there is a collection of over thirty complete aircraft, with further displays of cockpit sections, engines and aviation exhibits.

There are also some extremely well presented model collections and displays. The IPMS Coventry and Warwickshire Branch meet at the Museum, which has a good relationship with model makers, encouraging the hobby and holding two model-related events each year. There are extensive model aircraft displays throughout the Museum, relating to particular themes and helping to tell the story of aviation (photo 2).

Museum's roots

The Midland Air Museum has its roots in the Midland Aircraft Preservation Society which held its inaugural meeting on Wednesday 24 May 1967. The Society began gathering a collection of books, photographs, aircraft bits, engines and airframes, the first of which were the remains of a Parnall Pixie IIIa, a two-seat low-powered aeroplane built for the Light Aeroplane Trials. The Pixie still remains in the museum store, until the necessary resources become available for its restoration.

Next came the wings of an H.M.14 Pou de Ciel, 'Flying Flea' that created an aircraft home-building craze in 1935/1936 (photo 3). Using information from Henri Mignet's book, *'Le Sport de l'Air'*, (and in the absence of an Aeroclub conver-

sion set!), society members set about building a fuselage in a borrowed garage and acquired wheels, a rudder and other components for their first aircraft restoration.

Following this, more aircraft were acquired including a Wheeler Slyph, a Miles Messenger, a de Havilland Fox Moth, a de Havilland Rapide, a Bleriot XI replica and several gliders. Some of these still remain in museum storage whilst others were passed on to other societies and museums for restoration.

With the acquisition in 1972 of a de Havilland Vampire T.11 jet trainer, quickly followed by a de Havilland Vampire F.1 and a Gloster Meteor F.4, the search began for a permanent home to house the growing collection and establish a Midland Air Museum. It is one thing to have a collection of plastic kits in the loft, but real aircraft parts are another matter - and a lot harder to sneak in!

In 1975, their efforts were successful when a lease was negotiated with Coventry City Council for a small piece of land on the northern side of Coventry Airport and members began the task of establishing the Air Museum you can see today. Early in 1977 the Midland Aircraft Preservation Society officially changed into the Midland Air Museum. Once a site was secured, the museum began to grow, acquiring more aircraft and exhibits and in the three-and-a-half year period to 1981, no fewer than twelve additional aircraft were added to the collection. Discussions took place with other museums and with the Ministry of Defence department dealing with aircraft disposals, (a 'Hannants' for real aircraft).

Successful discussions also took place with the United States Air Force Museums Programme Office, which resulted in the acquisition of a North American F-100D 'Super Sabre' and a Lockheed T-33 'Shooting Star'. Also, because their production was funded under the US Military Aid Programme, the Museum additionally acquired a Dassault Mystère IV. All of these aircraft had been in service with the French *Armée de l'Air*.

Whilst most of us are content to take our model aircraft parts out of a box and assemble them in the comfort of our own homes, museum members soon realised it is different for them. Aerodromes are always built in cold, windy places and aircraft can take weeks to dismantle and then reload, with the assistance of cranes, on to trailer-lorries for transport to the museum. Once at the museum, again with the assistance of cranes, reassembly takes place. As with we modellers, the finished aircraft leaves them with a sense of achievement.

Two aircraft acquired at this time were of particular interest to the museum. The Midlands area has a significant aeronautical heritage and sharing this heritage with Armstrong Whitworth is the Boulton Paul Aircraft Company. In 1975 the museum acquired Boulton Paul P111a, a unique delta wing research aircraft which first flew in 1951 (photo 4). Transporting this aircraft to the museum proved a real problem, because it was built in one piece and could not be dismantled. I wonder how many parts the forthcoming Czech Master Resin kit will contain? Certainly getting this home won't close a Motorway like the real thing did.

Gloster Javelin FAW.5, XA699 (photo 5), was built by Armstrong Whitworth in Coventry on the other side of the airport to the museum site. Armstrong Whitworth produced many of the Javelins in Coventry and at their sister site at



Bitteswell. This aircraft is the only surviving FAW.5 and was acquired by the museum from Cosford. Transporting it also proved a real problem as the outer wing sections had to be removed which involved drilling out several hundred rivets on each wingtip and of course, putting them all back when the aircraft was reassembled. So if you are the 'rivet-counter' type of modeller, the museum 'counted them all out and counted them all back again!' The Javelin actually proved to be a double bonus because the type was powered by Bristol Siddeley Sapphire turbojets, also produced in Coventry. This and other Armstrong Whitworth built aircraft that were to be acquired later, were effectively 'coming home' and were a tribute to the aeronautical heritage of Coventry.

The Museum's collection continued to grow and with the delivery of an Avro Vulcan B.2, flown into Baginton airport on a snowy day in February 1983, it became apparent that the current site was rapidly filling up. To secure further land and a longer lease, the Museum moved onto an adjacent site of 4.5 acres, allowing enough new space for the construction of a hangar to care for at least some of the aircraft under cover.

The museum was successful in obtaining a grant for £110,000 from the West Midlands County Council. This provided for the building of what is now the Sir Frank Whittle Jet Heritage Centre. Later a second hangar, the Robin Hangar, was erected where restoration work is now carried out - less affected by the weather!

Local themes

The museum has two principal themes. 'The Story of the Jet' and 'Wings over Coventry'. Galleries for these have been created on the ground and first floors of the main hangar and these include displays of model aircraft related to the themes.

Today the museum is still run primarily on a voluntary basis - although it does employ a full-time Manager and two sales assistants in the shop. The shop is well

stocked with model kits, books and magazines and is well worth a visit. But it is the aircraft themselves that are the stars of the museum and it is some of these which we will look at in more detail.

Gloster Meteor F.4, EE531

This particular aircraft was built in 1946 and is the oldest surviving production Meteor. As you enter the Museum hangar, the Meteor seems to take pride of place amongst the exhibits. Painted in the camouflage colours of the immediate post-war period, the aircraft is an impressive sight. Displayed beside the aircraft is one of its powerplants, a Rolls Royce Derwent 5 centrifugal turbojet. The Meteor was acquired by the Museum in 1973 from the Royal Aircraft Establishment at Lasham, where it had been in store for 20 years. It had been used exclusively for experimental and trials work at Lasham and at Boscombe Down, before being retired in 1953. (photos 6 & 7)

De Havilland Vampire F.1 VF301

Adjoining the Meteor in the Hangar is the de Havilland Vampire F.1, in the markings of No 605 'County of Warwick' Squadron, Royal Auxiliary Air Force, based at nearby RAF Honiley. It is unusual to see a Vampire painted in Medium Sea Grey upper surfaces and PRU Blue undersides scheme. The front part of the 'pod' containing the small, narrow cockpit is made from plywood, linking back to de Havilland's Mosquito construction methods. This particular aircraft was actually produced by English Electric at Warton as de Havilland concentrated on Mosquito production. With its high-set tailplane, twin booms and striking colour scheme, this aircraft presents an interesting modelling subject. (photos 8 & 9 - see over page)



Lockheed T-33 Shooting Star 51-4419

The jet theme needs to show the development of American jet aircraft and the Lockheed T-33 represents this admirably, being a derivative of the Lockheed F-80 fighter. Its Allison J-33 centrifugal turbojet powerplant is a direct descendent of the same DH Goblin powering the Vampire. The Museum's T-33 was delivered to the French *Armée de l'Air* during 1952 where it served in the training role until being retired in the late 1970s. The aircraft is remarkably complete, with full cockpit instrumentation and ejection seats with red head-rests. The aircraft is painted in overall Air Defence Command (ADC) Light Gray with International Orange nose, tail and wingtip-tanks in the markings of the 57th Fighter Squadron USAF based at Keflavik, Iceland. (photo 10)

Lockheed T-33 Shooting Star 17473

The other T-33 in the museum collection is also a former *Armée de l'Air* training aircraft, but which has also received a new paint scheme which you couldn't fail to notice - bright blue with a 'sharkmouth' on the nose! A genuine paint scheme used by the Royal Canadian Navy. No 32 Utility Squadron (VU-32) operated a number of CT-133s, (the Canadian designation for the T-33), for Fleet Air Defence Training. The CT-133s, or 'Silver-Sharks' as they were known, were based at CFB Shearwater in Nova Scotia, and used for simulated attacks on warships. The squadron disbanded in 1992, and one of their aircraft, s/n132504, was painted blue with a 'sharkmouth' on the nose.

With its wide international use, the T-33 is a popular modelling subject and if you wish to model this particular CT-133, Leading Edge decals of Canada have a decal sheet in both 1/72 and 1/48 scales depicting the real aircraft, complete with a colour chip to help reproduce the right shade of blue. (photos 11 & 12)

Saab J29F Tunnan 29640

The Saab J29 Tunnan (Barrel) is of significance as Europe's first swept wing fighter. Designed and built by Saab in Sweden, the J29 was powered by a DH Ghost turbojet, produced in Sweden as the Svenska Flygmotor RM2, and first flew in September 1948. Over 600 were eventually produced for the Swedish Air Force, with some of these being acquired by Austria in 1961.

The Museum's J29F is number '08' of F29 Wing based at Uppsala. It was loaned by the Swedish Air Force, originally to the Southend Aircraft Museum and was then donated to the Midland Air Museum when the Southend museum closed. Moving the aircraft involved museum members making numerous trips down to Southend. Its robust construction made it difficult to dismantle and sometimes 'care and attention' had to be given with large hammers! Vandals did not help the process, breaking the canopy in an attempt to steal instruments. You know what it is like to get a kit only to be frustrated because the transparencies are broken! Happily, the Museum sent the 'Complaints Slip' back to the Swedish Air Force who responded with a replacement.

The Saab J29 was produced in kit form by both Heller and Matchbox in 1/72 scale. It is an attractive model and can also be displayed in the UN camouflage and markings scheme applied when the aircraft served on peace keeping duties in the Congo during the early 1960s. (photo 13)

Avro Vulcan B.2, XL360

When the RAF began to retire their Vulcan Bombers at the beginning of the 1980s, the chance to obtain one for the Museum was hard to resist. The money was

raised and on a snowy day in February 1983, Avro Vulcan B.2, XL360 emerged from out of the gloom to touch down at Coventry Airport.

For the museum, it immediately became a star attraction and access to the cockpit leaves visitors with that peculiar 'cockpit smile'. Visitors are also quick to notice that there is no door from the cockpit area into the bomb bay for James Bond to climb through, as there was in the film 'Thunderball'! Open wheel wells give plenty of scope for modellers interested in detail modelling.

Later in 1983, when Airfix released their kit, the opportunity to make one was hard to resist and armed with camera and note book, I shot around to the Museum to take some detail photographs and drawings. It was a unique experience, as a museum member, to work on the real aircraft during the day and work on the model at night! The museum's Vulcan served with several RAF squadrons, including Nos 44, 101, 35 and 617 'Dambusters'. (photo 14)

English Electric Canberra PR.3, WF992

Following the introduction of the Canberra B.2 Bomber, the RAF had a requirement to replace Mosquitoes in the Photographic Reconnaissance role and the prototype Canberra PR.3 first flew on 19 March 1950. The Museum's PR.3 served with Nos 39, 69, 58, and 82 Squadrons. This particular aircraft has been subjected to some extensive renovation, including the cockpit which is complete and functional. It was acquired by the Museum from British Aerospace in 1984. At that time it was in storage at Marshall's of Cambridge. Museum members travelled to Cambridge over a number of weekends to dismantle the aircraft.

The museum's aircraft is painted in the standard RAF camouflage scheme for Canberras, with black cockpit interior and wheel wells. The Canberra always seems to make an interesting model and with more kits on the release lists of several companies, there is scope for the production of some good, detailed models. (photos 15 & 16)

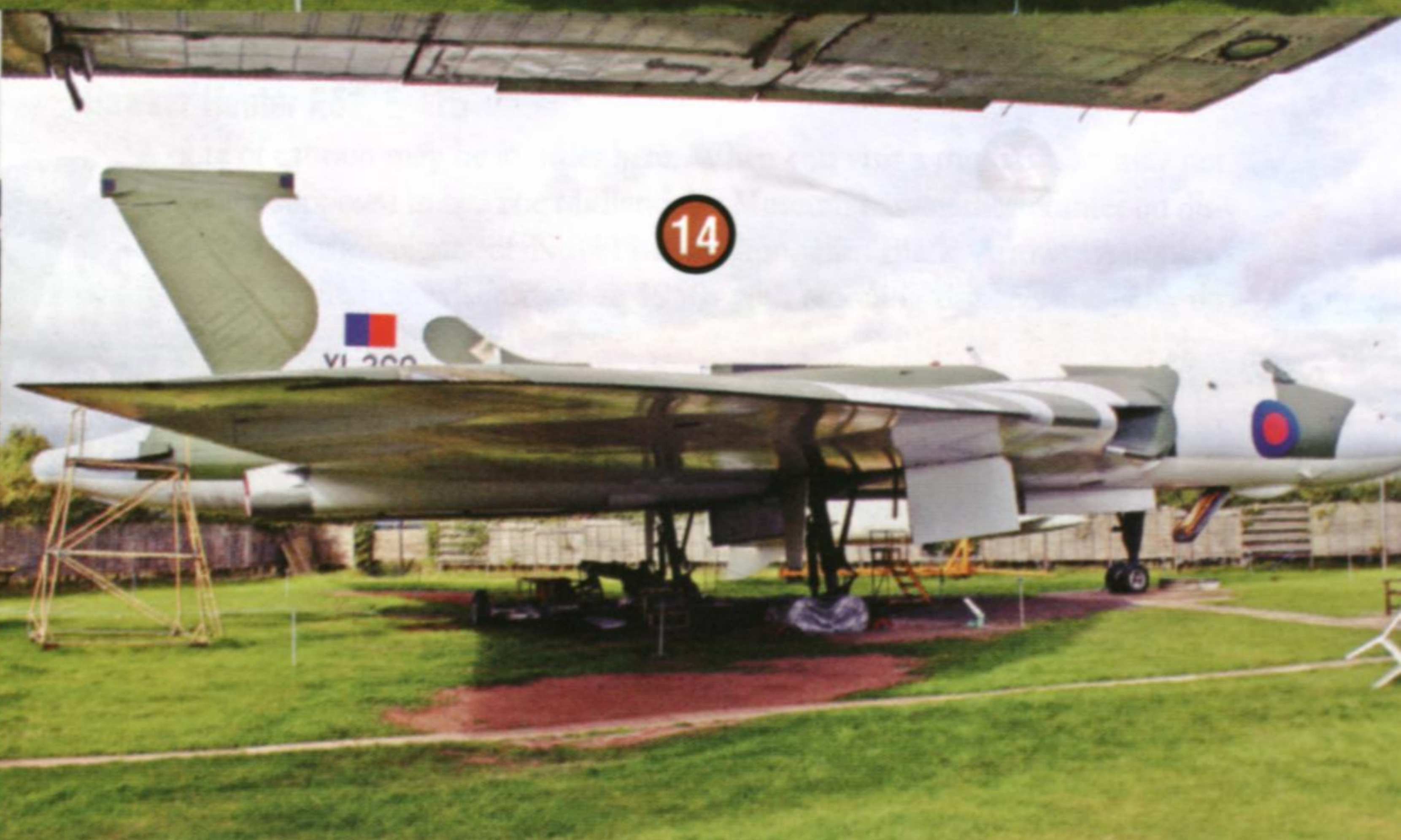
De Havilland Canada DHC Beaver 58-2062

During 1981, the distinctive 'thwocka-thwocka' sound of the CH-47 Chinook helicopter was heard over Coventry as the US Army delivered a DHC Beaver from Germany to the Midland Air Museum. As they were placed alongside the museum's airport fence, the unloaded aircraft parts had the appearance of a construction kit 'sprue', but in a short time they were together, bolts and rivets in place and a new exhibit was on display.

The Beaver was totally complete, with gleaming Pratt and Whitney R-985 Wasp Junior radial engine. The aircraft is painted overall Olive Drab with black anti-glare panel and faded orange markings on the upper wings and tailplanes. Cockpit interior is grey. Used by the US Army to patrol the border between East and West Germany and the Berlin Wall, the 'United States Army' legend is on both sides of the rear fuselage and the Berlin Garrison badge is carried on each side on the rear cockpit doors. Kits of the Beaver are available in both 1/72 and in 1/48 scale, and the museum's example can help with those all important details. (photos 17 & 18 - see over page)

Hawker (Armstrong Whitworth) Sea Hawk FGA.4, WV797

Armstrong Whitworth was part of the Hawker Group and production of the Sea Hawk was located in Coventry, so this is another museum aircraft that has 'come home'. It is painted in the standard Fleet Air Arm colours of the period comprising Extra Dark Sea Grey upper surfaces and Sky undersides. The cockpit interior is







black. The aircraft is depicted in the markings applied during the 1956 Suez Campaign, with black and yellow identification stripes around the rear fuselage and wings. HMS Eagle's code letter J is carried on the fin. (photo 19)

With recent kits in both 1/72 and 1/48 scales, this real aircraft can help you obtain the right 'sit' and 'look' of the aircraft, to do justice to your model. The current release of the Classic Airframe Sea Hawk in 1/48 scale and the Airfix kit in 1/72 still around, this is still a popular modelling subject. MPM/Special Hobby

Fairey Gannet T.2, XA508

Positioned next to the clean lines of Sea Hawk is the Fairey Gannet a big, tough carrier aircraft, with twin contra-rotating propellers, high slab fuselage sides and three cockpits high up in the 'superstructure'. The museum's example is a Gannet T.2, XA508, used to train pilots for the Anti-Submarine and the Airborne Early Warning versions. To assist the Instructor in the second cockpit, what looks like a metal 'shoe-box' containing a periscope was fixed between the cockpits to improve forward vision. Hardly a drag-reducing fix, but no doubt it did the job.

Gannet XA508 was the first production Mk T.2 and was delivered to No 737 NAS at Eglinton, Northern Ireland, in February 1955. It is painted overall aluminium with yellow training bands around the wings and rear fuselage. The propeller spinners and the anti-glare panels around the front cockpits are painted black, which is also the interior cockpit colour. The aircraft markings also reflect its service at Eglinton, with the GN tailcodes.

With so many lumps, bumps, hooks and protrusions, seeing the real aircraft is a real aid to accuracy, and modelling the trainer version would produce an out of the ordinary model. (photo 20)

Hawker Hunter F.6A, XF382

Back to a more graceful aircraft, the Hawker Hunter. This clean, attractive aircraft is a true British aircraft success, which looks right. Armstrong Whitworth at Coventry and particularly at nearby Bitteswell, played a major part in the production of Hunters. Earlier Marks of Hunter had trouble with the Avon engine malfunctioning when the Aden cannon were fired. One solution was to install the Armstrong Siddeley Sapphire engine in some Hunters, including all of the Mark 5 versions.

Learning from the experience of these earlier versions, a new Hunter was produced, the Mk 6, with gun blast deflectors, larger fuel capacity, improved Avon 203 turbojet and better handling, resulting from the 'saw-tooth' outer wing section. Armstrong Whitworth constructed 119 of the 415 produced. The Museum's Hunter, XF382, was one of these, so is another exhibit that has 'come home'.

What may not be generally known is that this aircraft and many other Hunters are 'American', the production run being financed under the US Military Aid Programme and its acquisition by the Museum in 1987 is under the USAF Museums Programme.

XF382 served with Nos 92, 63, and 65 Squadrons and with 229 OCU. It ended its flying days on the strength of 1 Tactical Weapons Unit, which also had the designation of No 79 'Shadow' Squadron. It is painted in the standard camouflage colours of the time of Dark Green and Dark Sea Grey upper surfaces with Light Aircraft Grey undersides. The cockpit interior is Black.

Disappointingly, this Hunter did not arrive with the 24 rockets, under wing fuel tanks or bombs. There are several kits of the Hunter F.6 about, most recently the superb release from Revell in 1/72 scale which should add to the popularity of the Hunter as a modelling subject. (photo 21)

Hawker Hunter F.51, E-425

A note of caution may be in order here. When you visit a museum, all may not appear as it is supposed to be. The Midland Air Museum has another Hunter on display, painted in the colours of No 111 Squadron, the 'Black Arrows' Aerobatic Team, which thrilled crowds in the late 1950s with stunning displays involving up to twenty-two Hunter F.6 s.

This Museum's Hunter is actually a Mk 51, a version based on an upgraded Mk 4, but retaining the straight leading-edge wing of that version. Hunter E-425 served with No 724 Squadron, Royal Danish Air Force, based at Skrydstrup, from 1955 to 1974. It was originally painted overall Matt Dark Green, which rapidly deteriorated over time. After some restoration, it re-emerged in its present colours as a tribute to the 'Black Arrows'. (photos 22 & 23)

Armstrong Whitworth Meteor NF.14, WS838

The last of the Armstrong Whitworth-built nocturnal Meteors, this two-seat night-fighter version of the Gloster Meteor is another aircraft that has 'returned home' to Coventry. A shortage of night fighters and an urgent need to replace the obsolete Mosquito prompted the drive to develop a Meteor night-fighter version, based on the Mark T.7 two-seater trainer. With Gloster fully occupied producing the single-seat fighters, design and production of the night fighter went to Armstrong Whitworth. The first version, the Meteor NF.11 first flew in May 1950. The NF.14, updated with more powerful engines, American radar, necessitating a longer nose and a clear cockpit canopy to improve visibility, first flew in May 1954.

The Museum's aircraft, WS838, spent much of its life with the Royal Aircraft Establishment and the Royal Radar Establishment, undertaking trials and test work with both organisations. During this time, the aircraft was painted a distinctive overall golden yellow, with black nose cone and anti-glare panel. In these colours, it was displayed at RAF Cosford, before the Midland Air Museum acquired it on loan when the museum staff unpacked their tool-boxes, hired cranes and moved it to Coventry.

Over the passage of time, the yellow paintwork has suffered from 'weathering' and following some restoration work the aircraft was repainted in the camouflage colours and markings of No 64 Squadron, with whom it served operationally, prior to becoming a test aircraft. The interior cockpit colour is black. (photo 24)

De Havilland Sea Vixen FAW.2, XN685 (photo 25)

Last of the de Havilland twin-boom jets and certainly not the prettiest, this aircraft is, big, bulky and seems to have been adorned with a lot of afterthoughts. Nevertheless, in its ten years of service with the Royal Navy's Fleet Air Arm, it built up a reputation for ruggedness and reliability, particularly the FAW.2 with its enhanced endurance and weapons carrying capabilities. Towards the end of its career with the Fleet Air Arm, the Sea Vixen served with two aerobatic teams, 'Fred's Five' and later, 'Simon's Circus'. Their displays were loud and bold and certainly fitting of the aircraft.

The Museum's aircraft, XN685, was originally built as an FAW.1 and was one of the first to be converted to FAW.2 standard. The tail booms were enlarged and extended over the leading edge of the swept back wings to house more fuel and the aircraft systems were upgraded, which enabled the Sea Vixen to carry four Red Top air-to-air missiles.

XN685, in its new FAW.2 standard, was first allocated to No 13 Joint Service Trials Unit operating from de Havilland's at Hatfield and from Boscombe Down. After two years service, it was sent to Chester for upgrading to 'Fleet' standard



before being returned to service with the Fleet Air Arm. It later served with No 893 NAS on *HMS Hermes* and with No 890 NAS with whom it finished its service in 1971. It was then allocated to RAF Cranwell as an Instructional Airframe and from there to RAF Cosford.

In FAA service, Sea Vixen FAW.2s were largely painted in Extra Dark Sea Grey upper surfaces with white undersides. Currently this aircraft is under restoration which will eventually see it re-emerge in its true colours.

Armstrong Whitworth Argosy 650, G-APRL

Politely known as the 'Whistling Wheelbarrow', the Argosy is another Coventry produced aircraft. A large capacity freighter and transport aircraft, the Argosy was produced in two versions; 650 is the civil version, with nose and rear opening door. The Military version, Argosy 660, had no nose door and clam-shell rear doors, the lower of which provided a boarding ramp.

The large size and twin-boom tail assembly give the aircraft a distinctive shape. It was powered by four Rolls Royce Dart Turboprop engines.

The Museum's Argosy 650 is one of the first prototypes and had an international flying career. It was last used in the service of Elan Parcel Services, as part of an overnight freight delivery service based at East Midlands Airport. The Museum acquired the aircraft on its retirement when it made its last flight over Coventry city to the museum in 1987. To many people it was a nostalgic sight and sound and a key acquisition for a museum themed to local aviation history. It is a pity the Argosy has not yet been the subject of an injection-moulded construction kit. (photos 26 & 27)

Dassault Mystère IV, VA-70

In the 1950s, the French Company Dassault designed a range of jet fighters for the French Air Force, first producing the straight-winged Ouragan and then the swept-wing Mystère. The Mystère IV emerged as the main production version of which some 425 were produced, seeing service with India and Israel as well as the *Armée de l'Air*. Under the Military Assistance Programme, the US funded the production of 225 aircraft for the *Armée de l'Air*, including VA-70 on show in the Museum. VA-70 served with several squadrons before being retired in the mid-1970s.

Those aircraft technically owned by the United States, reverted to their possession on retirement and many went to USAF Bases for use in Battle Damage Repair Training, where specially trained aircraft mechanics bashed holes in them to simulate combat damage, which other mechanics learned to repair. However some, under the generosity of the USAF Museum's Programme, were loaned to established Air Museums.

To aid preservation, the Mystère VA-70 was repainted in the colours of the French Aerobatic Team, 'Patrouille de France' which often displayed at the annual Coventry Air Pageants during the late 1950s. (photo 28)

Lockheed F-104G Starfighter, 64-17756

This is an aircraft which many people would count as one of their favourites, including me! There is something about that long pointed fuselage and the small 'razor blade' wings that make this aircraft rather unique and fascinating. On 30 April 1987, the Midland Air Museum got 'up close and personal' with the Starfighter when a Royal Danish Air Force C-130 Hercules of ESK 721, touched down at Coventry Airport to deliver 64-17756 to the Museum.

Museum members joined the airport and Hercules crew to unload the

stripped-down fuselage, followed by the fin, tailplane, wings, nose cone, wing fuel tanks and a big box of bits. It was just like buying a half-built kit at a kit-swap! After a quick trip to the local pub, the Hercules crew returned to Denmark and the museum members continued reassembly and then towed the aircraft across to the museum site.

The F-104G Starfighter, painted overall dark green, is coded R-756 and served with the RDAF's ESK 726, based at Alborg in Northern Denmark. The Starfighter is well worth the visit, particularly before you build a model of one. The thin leading edges of the wings are worth noting, but not experiencing as I recall when bending down to photograph the undercarriage legs! (photo 29)

McDonnell Douglas F-4C Phantom, 63-7699

On 14 May 1967, Major Samuel Bakke and his 'back-seater' Captain Robert Lambert, were flying F-4C 63-7699 on an escort mission, (MiG CAP), over North Vietnam, when they spotted a detachment of NVAF MiG-17s breaking to engage the USAF strike force. Major Bakke manoeuvred the Phantom towards the MiGs and a radar 'lock' was achieved. An AIM-7E Sparrow semi-active radar homing missile was launched and the MiG-17 was destroyed. Twenty-six years later, this Phantom was acquired for display at the Midland Air Museum.

At the time, the Phantom was part of the 366th Tactical Fighter Wing (TFW), 480th Tactical Fighter Squadron (TFS), on detachment to DaNang South Vietnam. The 366th TFW comprised three Phantom Squadrons, the 389th TFS, (tail code 'A'), the 390th TFS, (tail code 'B'), and the 480th TFS, (tail code 'C'). 63-7699 carried the tail code 'CG' and is painted with this code now, in Vietnam period camouflage and markings, including the MiG 'kill' red star painted on the left air intake splitter plate.

After later service with the 12th TFW, 557th TFS, which was disbanded in 1971, 63-7699 was, like most F-4C versions at the time, allocated to Air National Guard Units in the United States following re-equipment with the more advanced F-4E in front line USAF Squadrons. The Museum's Phantom served with 142nd Fighter Interceptor Group, Oregon Air National Guard. During 1989, the USAF retired the Phantom F-4C from its inventory and many were flown to USAF Bases all over the world for use as Battle Damage Repair Training aircraft.

63-7699 was to suffer this fate at RAF Upper Heyford, then home to the F-111 equipped 20th TFW, but in 1993 it was acquired by the museum under the USAF's Museums Programme and moved by road to Coventry. The Phantom is another favourite aircraft of mine and also an impressive modelling subject. (photo 30)

McDonnell F-101B Voodoo, 56-0313

As a single-seat fighter the Voodoo never seemed to achieve its potential and had a relatively short career with the USAF. However, in its RF-101C reconnaissance version and in the later F-101B two-seat interceptor version, it did achieve notable success. The F-101B Voodoo was designed in the early 1950s and after production problems, made its first flight in March 1957. Crewed by a pilot and radar observer, the F-101B was designed for service with the USAF Air Defence Command, protecting the approaches to the Continental United States. By the end of the 1950s, seventeen USAF Squadrons had become F-101B operators and in 1961 the Royal Canadian Air Force took delivery of sixty-six F-101Bs.

The Museum's aircraft served with several USAF Squadrons and later with Air







National Guard Squadrons, before being retired and, like the Phantom, allocated to USAF Bases for Battle Damage Repair Training. It is currently painted in overall Air Defence Gray, in the markings of the USAF Air Defence Command, 60th Fighter Interceptor Squadron, based at Otis Air Force Base, on Cape Cod, Massachusetts. (photo 31)

North American F-100D Super Sabre, 542174

The Super Sabre was the first Western jet fighter to fly faster than sound in level flight. It performed with distinction in the USAF, proving to be a very versatile combat aircraft, and went on to serve in the air forces of several other countries. For a short while in the late 1950s, it was also the mount of the USAF's 'Skyblazers' aerobatic team and appeared at Coventry Air Pageants.

Super Sabre 542174 served originally with the USAF in the continental United States and then on detachment to Sidi Slimane in Morocco. It was then allocated to the French *Armée de l'Air* in 1958, serving with several squadrons and taking part in anti-guerilla operations in Djibouti, East Africa. Upon retirement, it was allocated back to the USAF and acquired from them by the museum in 1978.

Museum members still recall the bitter winter days at RAF Sculthorpe in Norfolk. They always build aerodromes in windy places and here the winds were direct from the Arctic, making the dismantling of the aircraft for its move to Coventry a difficult task. Originally in French camouflage colours, it is now painted to represent a USAF example during the Vietnam War period of the late 1960s.

You may have gathered by now that I am a 'heavy metal' fan and my first F-100 model was the original Frog kit. Modellers can find seeing the real aircraft rewarding, not least on the rear fuselage of the F-100, where the after-burner of the Pratt & Whitney J67 turbo-jet leaves colourful metallic 'bands' around the exhaust area. (photos 32 & 33)

English Electric Lightning F.6, XR771 and English Electric Lightning T.55, 55-713

The Museum is fortunate to display two versions of the English Electric, (later British Aircraft Corporation), Lightning. Described as 'the last of the great British fighters', the Lightning was the first British fighter to exceed the speed of sound in level flight and has a rate of climb that is still hard to beat even today. It is a large, purposeful aircraft that played a leading role in the air defence of Great Britain from the early 1960s to the end of the 1980s, when the last Lightnings were retired at RAF Binbrook. The retirement Air Show was a very wet day and no doubt the rain hid many a tear being shed.

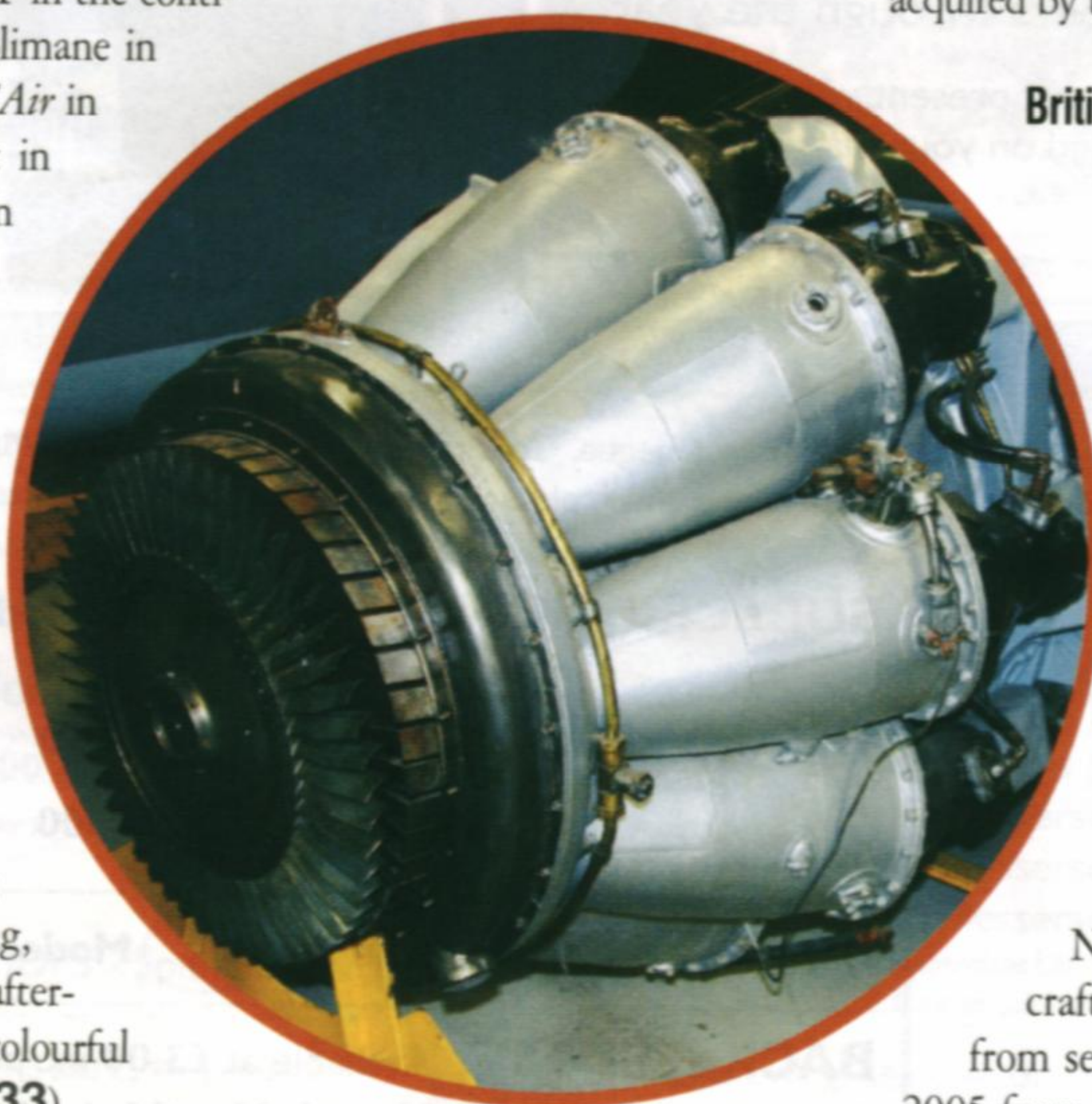
The F.6 was the last fighter variant of the Lightning used by the RAF and XR771 served with Nos 5, 11, 56 and 74 Squadrons during its service. It has retained the Dark Green, Dark Sea Grey camouflage scheme adopted during the mid 1970s.

In contrast, Lightning T.55, 55-713, is a two-seat trainer version built for the Royal Saudi Air Force. It was one of six T.55s to be delivered to Saudi Arabia to convert pilots to the Lightning F.53, (an export version of the F.6), then being used by the Royal Saudi Air Force. On completion of their service and replacement by Tornados F.3s in the mid-1980s, the Lightnings were flown back to the Warton in the UK by British Aerospace. The Museum acquired 55-713 in 1989 and the aircraft retains its Royal Saudi Air Force markings. (photos 34 & 35)

Mikoyan Gurevich MiG-21SPS, '959'

Who would have thought that MiGs would be displayed in UK Air Museums! The Midland Air Museum has a MiG-21SPS which previously saw service with the LSK/LV East German Air Force. Designated 'Fishbed D' by NATO, this MiG-21 was a later version of the series with Blown-Flaps, (SPS), for improved operation at low level and at lower speeds. In the East German Air Force, it last served with *Jagdfliegergeschwader 2* named 'Yuri Gagarin' Squadron after the first man into space, and was based at Neubrandenburg, north of Berlin.

Having a ground-attack role, the aircraft is painted in brown and green upper surface camouflage colours, with light blue undersides. The cockpit interior is that peculiar turquoise blue colour typical of Soviet produced aircraft. Inherited by the *Luftwaffe* on the reunification of Germany, MiG '959' was retired from service and acquired by the Museum in 2001. (photos 36 & 37)



British Aerospace Sea Harrier F/A.2, ZE694

Another aircraft not really expected to be seen in museums, at least not quite yet, following its unexpected withdrawal from service, the Sea Harrier F/A.2 has given a bonus to museum visitors. ZE694 is in immaculate condition because of its comparative short service life. Originally built as a Sea Harrier FRS.1 in 1988, it was converted to F/A.2 configuration in 1995.

Painted in the standard Sea Harrier colour scheme of overall Medium Sea Grey, ZE694 served with all three Royal Navy Sea Harrier Squadrons and aboard all three aircraft carriers, ending its days with No 801 Naval Air Squadron on *HMS Invincible*. This aircraft last flew during 2004 and was then retired from service. It was acquired by the Museum in early 2005 from RNAS Yeovilton. (photos 38 & 39)

Other Museum Aircraft and Displays

Other aircraft on display include DH Dove, G-ALCU, painted in the colours of the Dunlop Company Dove G-ALVD; Westland Whirlwind Series 3, G-APWN in the colours of Bristow Helicopters; Flying Flea, G-AEGV and Fairey Ultra-light G-APJJ. A Polish WSK-PZL-Mielec TS-11 Iskra jet trainer is awaiting assembly on the site. (photos 40 & 41)

The Hangar Galleries also house full size replicas of a Humber Monoplane, based on the design of the Bleriot that first flew over the English Channel in 1909, and a Sopwith Pup which was produced in Coventry by the Standard Motor Company during the first World War. The Museum also has a good collection of aircraft cockpit sections including a Meteor Mk 8, Sea Vixen, Blackburn (BAC) Buccaneer and BAC Canberra T.17.

Individual Galleries and display areas show a wealth of information on aircraft and aircraft engines over the years. A visit to the Midland Air Museum is an education and an excellent modelling research experience. In producing this article I am grateful to Barry and Diane James and to the Trustees and members of the Midland Air Museum. (photos 42 & 43)

The Museum is situated along Rowley Road at the side of Coventry Airport and is open all year round from 10.00am except Christmas Day and Boxing Day. It is well worth a visit. **AM**

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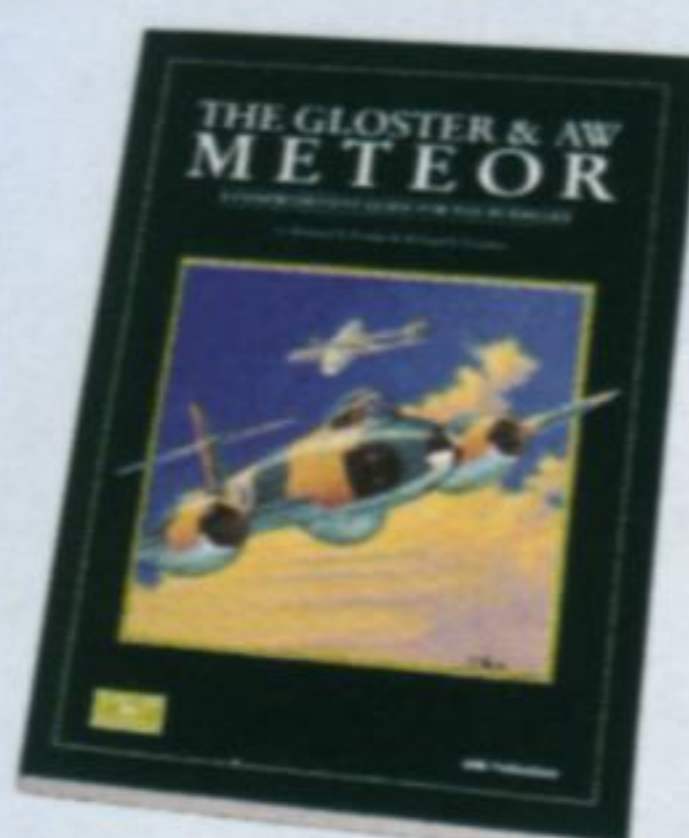
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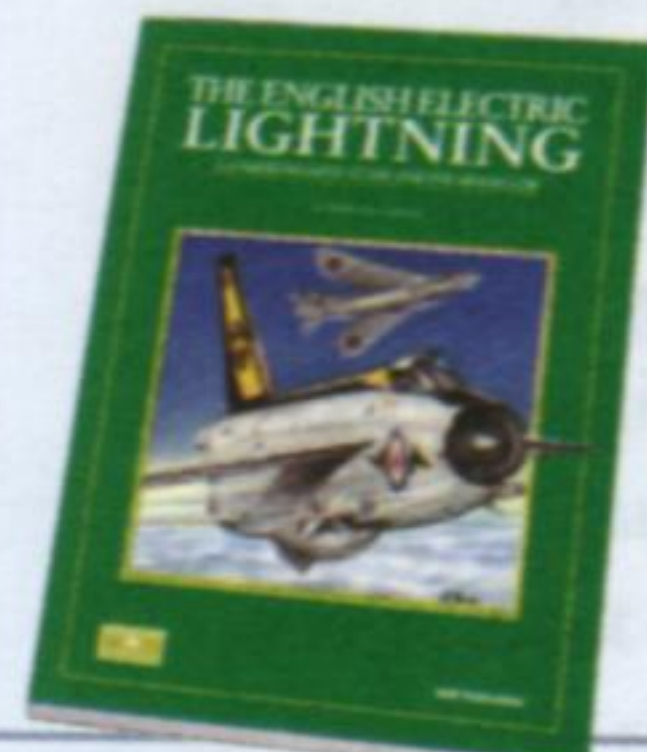
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Swords into Ploughshares Part 2

A very civil Boston

Mike Robson turns his non-belligerent talents onto the Douglas A-20 Boston in the second installment of his occasional series

FRANKLY, WHILST ITS WARTIME RECORD CANNOT IN any way be understated, the Douglas Boston/Havoc has never really attracted me as a modelling subject. It seemed too bulbous in appearance and all those acres of browns and greens didn't really attract – until I came across a picture of Howard Hughes' executive conversion of the A-20G, N34920, photographed in 1955 at Oakland, California.

Encouraged by the few encouraging remarks about my civilianised Marauder, (see 'MAM' Vol 4/3), but spurred on far more by the many shocked comments from the military purist readers, I resolved to find an example of the old Airfix Boston and start cutting! An Airfix Boston eventually found its way into my hands, albeit minus the instruction sheet

but with the 'bonus' of a shrivelled up glue capsule which certainly dated the kit! (photo 1)

Some 2,850 A-20Gs were built between 1941 and 1944, this particular variant being produced in the largest numbers, and the type served as a medium bomber, attack/night fighter, photo-reconnaissance aircraft and personnel transport. Its performance, with a maximum speed in excess of 340 mph with attendant manoeuvrability, labelled the Boston/Havoc as somewhat of a 'hot ship', and it served with distinction in almost every Theatre of the Second World War.

Post-war, I imagine because of its rather narrow fuselage and single-pilot flight deck, the aircraft was not popular as an executive transport, unlike its more suitable brothers-in-arms, the B-25 Mitchell and the A-26 Invader. Whilst a few civilianised versions found their way into firefighting duties, only a handful ever served in the high speed transport role. Apart from the odd mention in books, a few photos and notes on the Internet, I have found very little information about these civilian conversions, such as who engineered them or indeed who operated them, so the following conversion is based largely on photographs provided by my good friend, aviation photographer, Walt Redmond. A similar conversion of another A-20, N63148, is shown in photo 2.

The chosen Boston was built in 1944 and carried the c/n 21844. After several years of operations with the Hughes organisation, together with an A-20J, it was put out to pasture at Antelope Valley Museum in Lancaster, CA, USA, where it was partially dismantled and steadily deteriorated as seen in photo 3. However, the aircraft escaped the breaker's torch when, in 1993, it was purchased by well-known warbird collector, Kermit Weeks, and is now understood to be at his Polk City, Fla, premises, awaiting restoration.

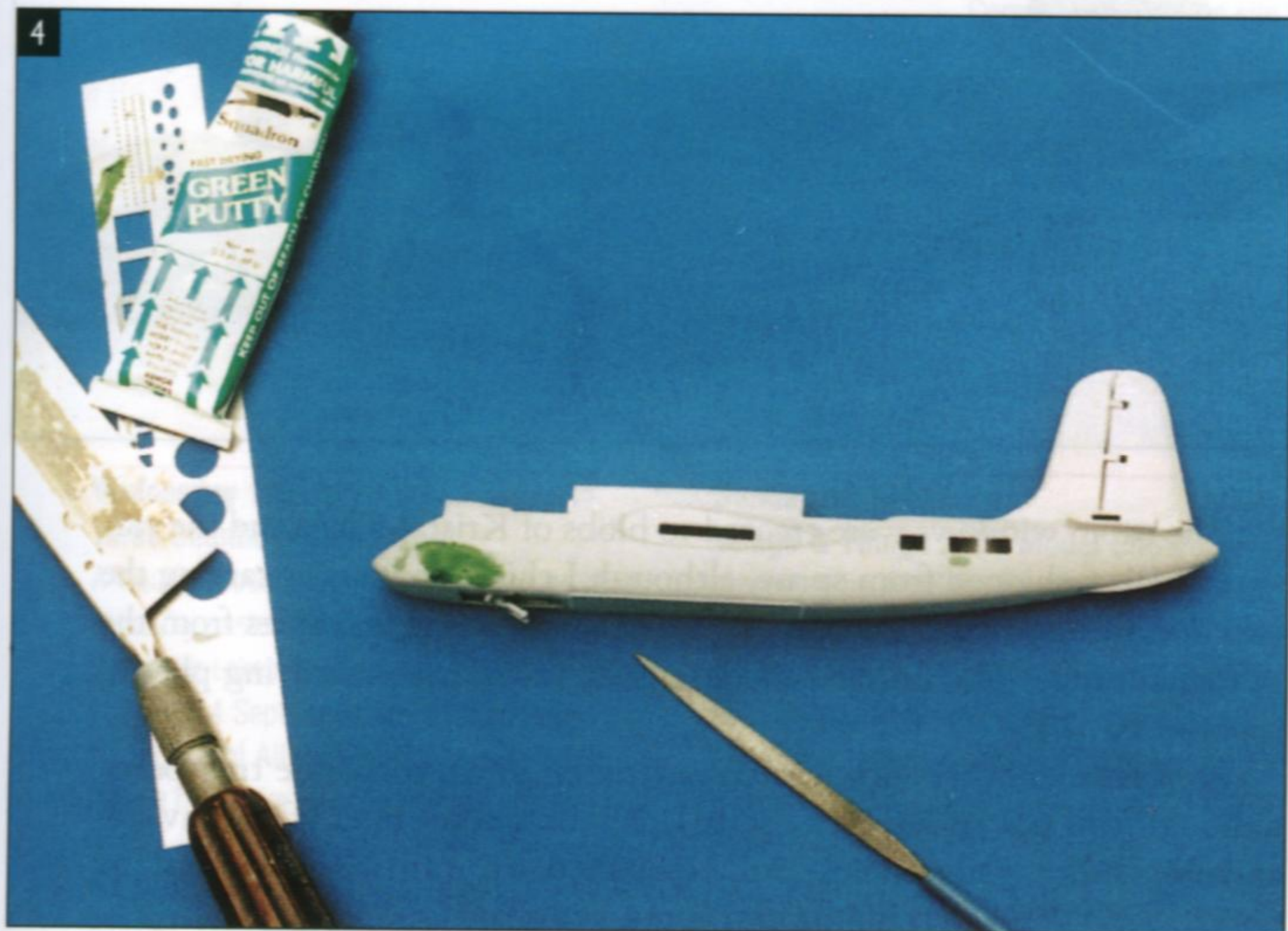




This is a simple conversion but the end result is quite eye catching. It involves:

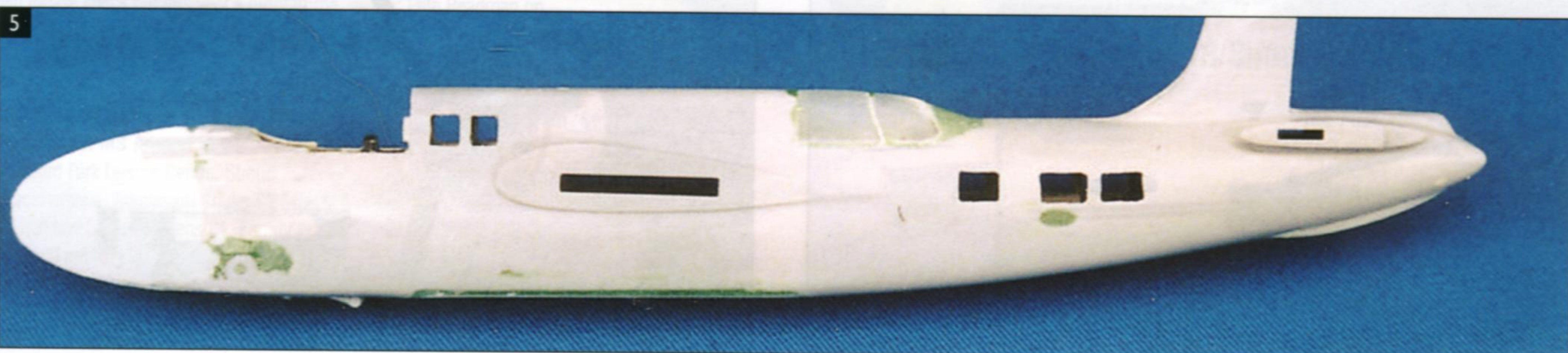
- Removal of the nose-mounted gun blisters and filling in of the gun ports
- Deletion of the small elliptical windows in the rear fuselage
- Covering over and reprofiling the rear gun turret area
- The addition of six cabin windows aft of the wing and four behind the cockpit
- Reprofilng and filling in the 'glasshouse' nose
- The addition of various new aerals and direction finding loops

For an aircraft of this era I did not feel it necessary to remove all the prominent rivet detail completely. An overall light sanding of the components reduced them so that 'a mere suggestion' remained, which I feel looks reasonably authentic. I then marked out the new cabin windows with a soft pencil. To create the windows I followed the usual method of drilling holes at each corner of the window and then easing out the plastic with a scalpel. The trick is to cut the windows undersize and then to bring them steadily up to size with a succession of small files. Sounds easy, but this is one job I can always guarantee to make a mess of!



The gun blisters were sawn off using an X-acto saw and backed with pieces of plastic card, (photo 4). This is essential if the filler applied later is not to distort or fall out. The mounting bosses for the nosewheel intrude into this area so care was needed not to damage them and thus make the undercarriage assembly unnecessarily weak.

The small oval shaped 'Fire Extinguisher' windows were fitted in the rear fuselage but filled from the outside as these did not feature on the civilian conversion. The holes resulting from the previously sawn-off gun blisters were similarly filled at this stage. The cockpit supplied with the kit is rudimentary in the extreme, so I added a few boxes and levers plus



some seat belts – just in case anyone looked too closely! I painted the interior in a mixture of greys and black assuming that Howard Hughes' pilot of the day would not have appreciated retention of the wartime livery. As with my earlier Marauder conversion, I had no information as to the executive interior so no attempt was made to add detail to the passenger cabin.

The next step was to add some nose weight in the bomb aimer's station and cement the fuselage halves together, not forgetting to sandwich between them the front undercarriage leg and the separate rudder. I also added the rear bulkhead which would help keep the fuselage rigid.

The Boston kit's bomber nose transparency was then added as, whilst it does not feature exactly the same profile as the solid civilian version, it does provide a useful base upon which one can build up the new shape. The rear gunner's dorsal glazing was fitted in the same way and the rather prominent bomb bay panel lines were also filled in. The cockpit canopy was left off until it had received a polish.



I made a vertical hacksaw cut in the nose to accommodate a plastic card 'keel', cut to the shape of the new nose profile. A hacksaw was used rather than a razor saw to allow a more substantial piece of plastic card to be slotted in. When this was firmly fixed, I built up the nose to its new shape using Milliput and left it to dry thoroughly, photo 5.

This kit harks back to the Airfix 'all singing, all dancing' period with movable control surfaces and even a retractable undercarriage. Whilst the undercarriage is acceptable, the treatment of the ailerons leads to somewhat out-of-scale gaps between the fixed and articulating control surfaces as can be seen in the underside view in photo 6. Restorative surgery was a bit beyond me so they were left alone.

The rear gunner's dorsal glazing area requires reprofiling. The wartime bomber version's two-part transparencies were cemented into position to provide a former, and then the rear profile was built up to a more gradual curve using Milliput. Finally, the fuselage was given an overall sanding to blend in the areas of filler applied earlier, and the cockpit canopy was fitted and faired in. These areas and the additional windows in the fuselage plus the four aft of the original cabin glazing, can be seen in photos 7, 8 and 9.

The wing halves were lightly rubbed down to reduce the prominence of the rivet detail and were fitted together without any undue problems. The engine nacelles followed suit and also proved to be a reasonable fit on the wings, requiring only a trace of filler. There are no separate engine mouldings as such on this aircraft, the 14-cylinder Wright R-2600 engines simply being represented by a single row of cylinders moulded within the cowlings. These were painted first with Humbrol 85 Satin Coal Black and then drybrushed with Humbrol Metalcote Steel, before fitting the three-bladed propellers. I elected to leave the propeller/engine assemblies off the model until final assembly as the propeller blades are often prone to damage.



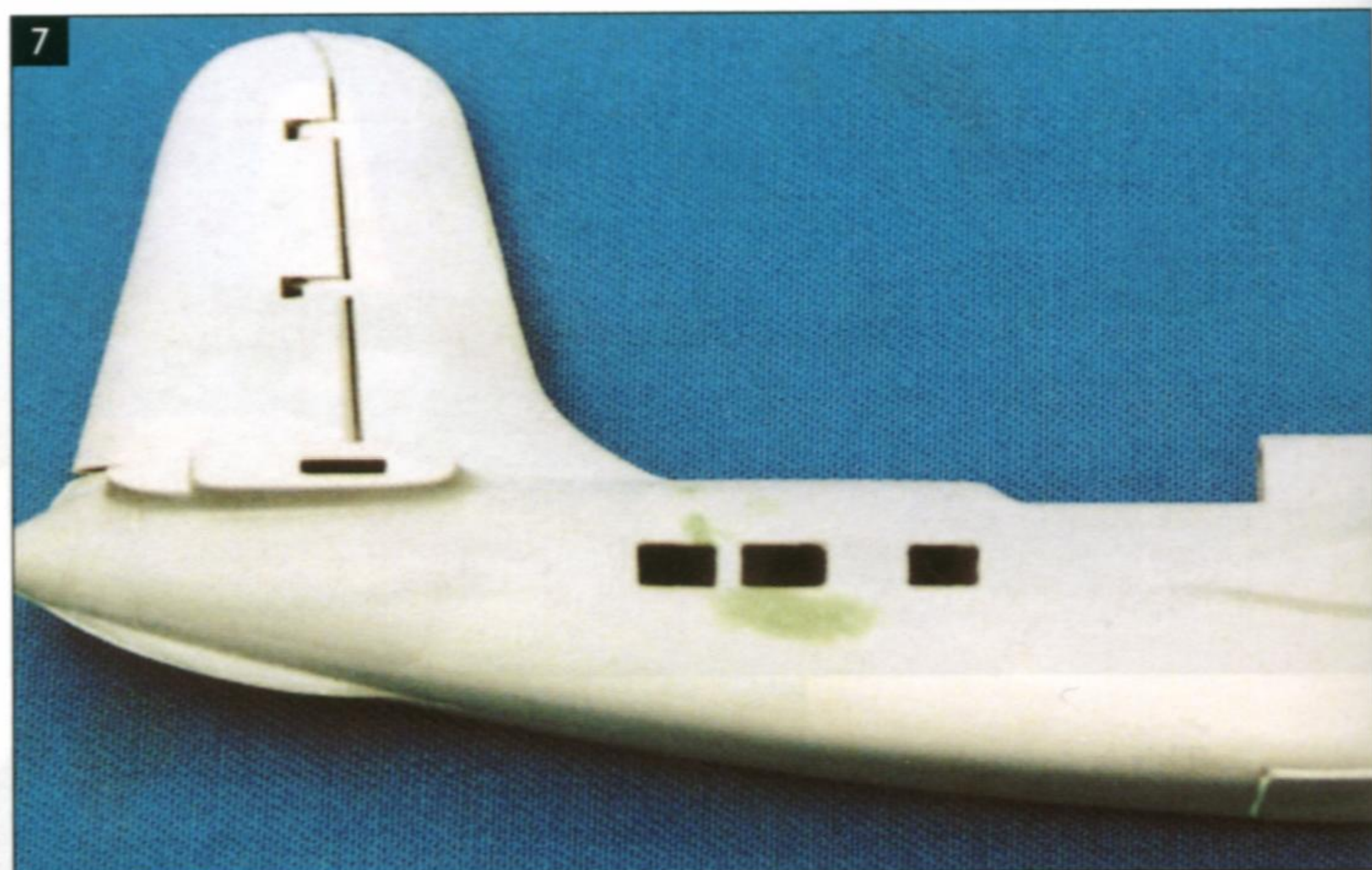
I chose to paint the rear sections of the engine nacelles at this stage, again using Humbrol 85. A light coating of Tamiya Smoke with a little light grey added was then airbrushed on to represent the fairly heavy exhaust staining. The nose and mainwheel wells and undercarriage gear assemblies were painted with a mixture of Humbrol Metalcote Steel with a touch of grey. The mainwheels were treated separately – Humbrol 33 Matt Black with a touch of grey added for the tyres, steel for the inside faces and a mid-grey for the mainwheel outer covers

The tailplane, which comes in four parts, was then assembled and cemented to the fuselage, taking care to ensure the correct dihedral angle. The elevator hinge gaps proved to be too obtrusive so these were filled in and rescribed.



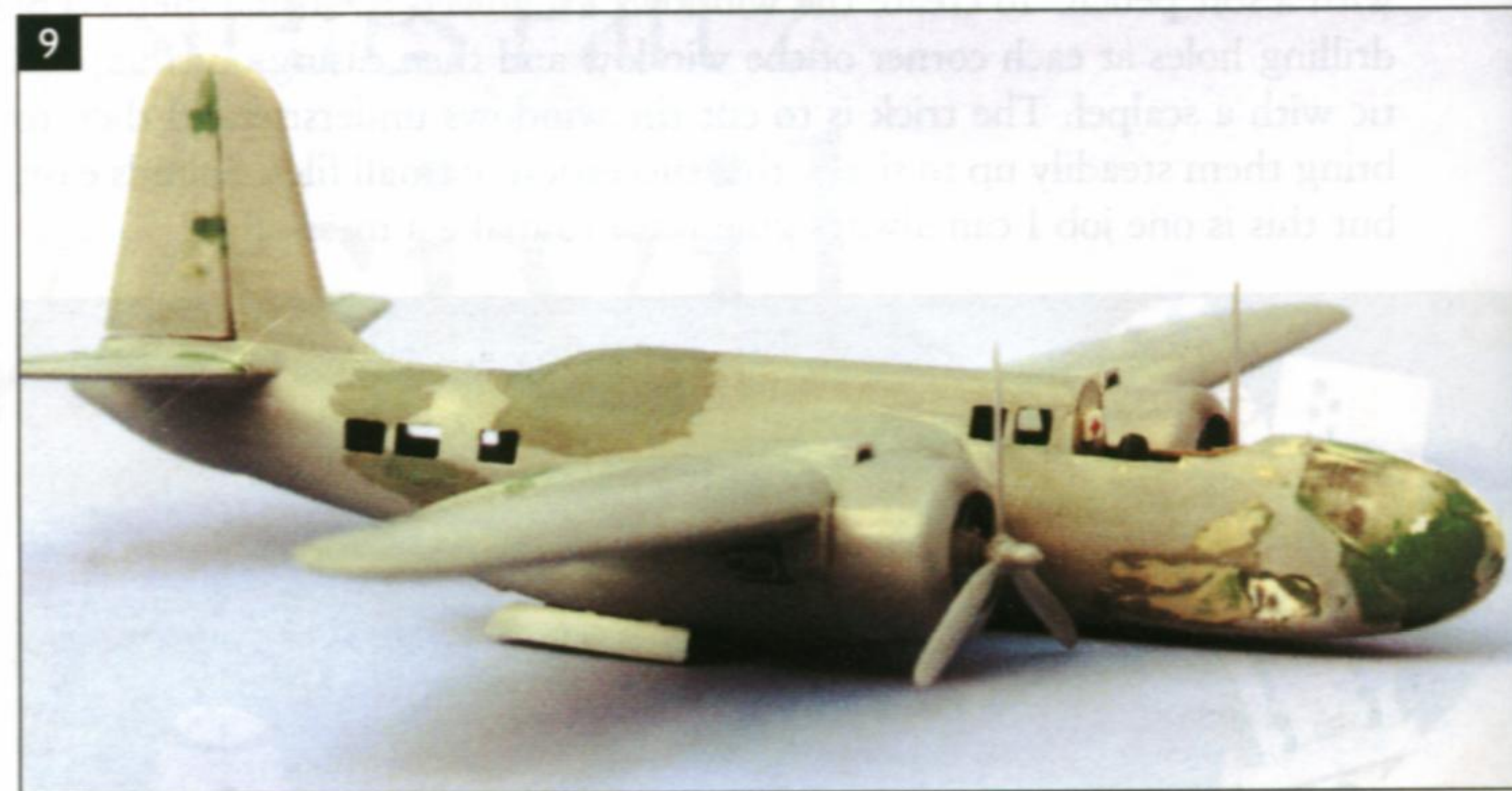
The entire airframe was then washed to remove any traces of grease and, when dry, the cockpit canopy was masked with tiny strips of Tamiya masking tape and the prepainted engine nacelles were likewise masked before applying a mist coat of Halford's aerosol acrylic White Primer. Fortunately this did not show up any substantial areas of poor modelling so, after some 15 minutes, a second coat of the same was applied. The engine cowlings which had been kept separate from the model were similarly treated. The propellers were painted Humbrol 85 Satin Coal Black with Humbrol 24 Trainer Yellow tips and natural metal, (ie Humbrol 11 Metallic Silver), hubs.

Following the instruction on the can, I waited 24 hours before applying a coat of Halford's Appliance White Gloss which did not seem to



require a second coat so this was deemed to be the final finish. The anti-dazzle panel ahead of the windscreen was masked off before being sprayed Humbrol 33 Matt Black.

All markings were bright TWA red. The double fuselage cheat line and the bands across the fin and rudder were fashioned from clear decal sheet painted with Humbrol 19 Gloss Bright Red. The US civil registration letters, N34920, on the fin came from Aeroclub's civil lettering sheets, the wing registrations from an old Almark sheet and, following masking, the trim around the engine cowlings was again painted Humbrol 19 Gloss Bright Red.



The cabin windows were treated to blobs of Kristal Kleer and the various aerals fashioned from sprue, although I chickened out at carving the two dorsal-mounted DF loops and fitted white metal examples from the Aeroclub range. The finished model is seen in the accompanying photos, (photos 10, 11)

So, I have another addition to my fleet of 1950s corporate transports, although this one, it has to be said, lacks the sleeker lines of the Invader and Marauder conversions. Still, it suited Howard Hughes and he undoubtedly knew a thing or two about aeroplanes!

What next? How about a civilian B-25? Or, have I heard rumours of a corporate Northrop Reporter somewhere in the dim and distant past? **AM**

References used

- <http://1000aircraftphotos.com/Contributions/Larkins/3340.htm>
- Walt C Redmond
- 'The Aircraft of the World' – by Green and Pollinger. Eds. II and III

...and special thanks to Ian Southwood



Showtime

August

Sunday 7 August:

AeroVenture Model Show

at Doncaster AeroVenture Air Museum, Doncaster Lakeside, Doncaster. Gates open 10.00am. Entrance to model show includes entrance to the museum. Adults £3.50; Concession £2.50. Many Club stands and traders. For further details contact John Morely T: 01302 761616 or T: 01302 771954

Saturday 13 and Sunday 14 August Wallis Days 2005

at Shipdam Airfield, Norfolk - sponsored by the British Rotorcraft Association. A variety of autogyro types are planned to be in attendance. Visit Wing Commander Ken Wallis' unique autogyro collection. This year's event will also feature 'Model Autogyro 2005'. Trade stands, refreshments and camping facilities. For further details contact Woody DeSaar T: 01493 332794
E: <gyrowoody@yahoo.com> or Ron Bartlett
<ron@autogyro.flyer.co.uk>



Saturday 20 August Southdowns Model Show

at Lancing Community Centre. Entry by raffle ticket. Club stands and traders. For further details contact Paul Janicki T: 01403 782638, or Richard Dawes T: 01903 756241

Sunday 21 August IPMS Avon Show

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sept

Wednesday 14 September Three Counties Model Meet

A friendly modelling competition will be held at the Doncaster AeroVenture Air Museum, Doncaster Lakeside, Doncaster, on Wednesday evening, 14 September. from 7.00pm to 10.30pm-ish! All modellers welcome - but bring a model for the competition. Pie and Pea supper. For further details contact Neil Robinson, T: 01226 742142 or Martin Blundell, Doncaster AeroVenture Air Museum, T: 01302 761616.

Friday 16 to Sunday 18 September E-Day 2005

E-Day 2005 will take place in the Holesovice exhibition area, Prague. It will start on Friday 16th and end on Sunday 18th with main date on Saturday 17th. On the same weekend there will be an aviation movie festival in Prague! There is also Prague Aviation Museum in nearby Kbely. It is a large event, even the Czech Air Force will cooperate with E-Day as well! Please check out this year's programme on W: <www.eday.cz> For further details go to <www.eduard.cz>

Sunday 18 September Gloucester IPMS Annual Show

at Stafford Park Leisure Centre, Stroud, Gloucestershire. Admission Adults £2.50, Children and Senior Citizens £1, Family ticket £5. 10.00 am to 4.30 pm. Contact for club and trade enquiries: Jeff Brown T: 01285 659254 after 7 pm or E: <Jeff.P51D_@tiscali.co.uk>

Sunday 18 September Wings & Things 2005 Model Show

presented by IPMS Fenland & Spalding Model Club at the Spalding Grammar School. Sponsored by J B Models. All proceeds go to Lincolnshire/Nottinghamshire Air Ambulance. For further information contact Bill Pickering T: 01775 710465, T: Peter Emms on 01775 767729

Saturday 24 and Sunday 25 September South West Model Expo 2005

at The Tank Museum, Bovington, Dorset. Model Competition on Sunday. For further information T: 01202 692 999 or E: <info@eventsthatwork.com>

Sunday 25 September Modelfest 2005 Scale Model Show

Presented by IPMS Farnborough at Farnborough Sixth Form College, Prospect Avenue, Farnborough, GU14 8JX. Two miles from M3 Junction 4. For further information E: Pete Readman on <preadman@btconnect.com>

Sunday 25 September Midland Air Museum 'Summer Model Show'

For more details contact the Midland Air Museum, Coventry Airport, Baginton, Warwickshire CV8 3AZ T/F: 02476 301033

Sunday 9 October IPMS Abingdon Annual Model Show

at The Larkmead School, Abingdon. Sponsored by The Aviation Workshop. Doors open from 10.00am to 4.00pm. For further details Gary Madgewick T: (01235) 769038, Alan Dag T: (01235) 202782 or Steve Lovelock T: (01235) 815571. Or E: Matt Coy at <matthewcoy@hotmail.com>

Saturday 22 October Autumn Model Show

at the Fleet Air Arm Museum, RNAS Yeovilton, Somerset. T: 01935 842614
E: <www.fleetairarm.com>

Sunday 4 December Midland Air Museum 'Christmas Model Show'

For more details contact the Midland Air Museum, Coventry Airport, Baginton, Warwickshire CV8 3AZ T/F: 02476 301033

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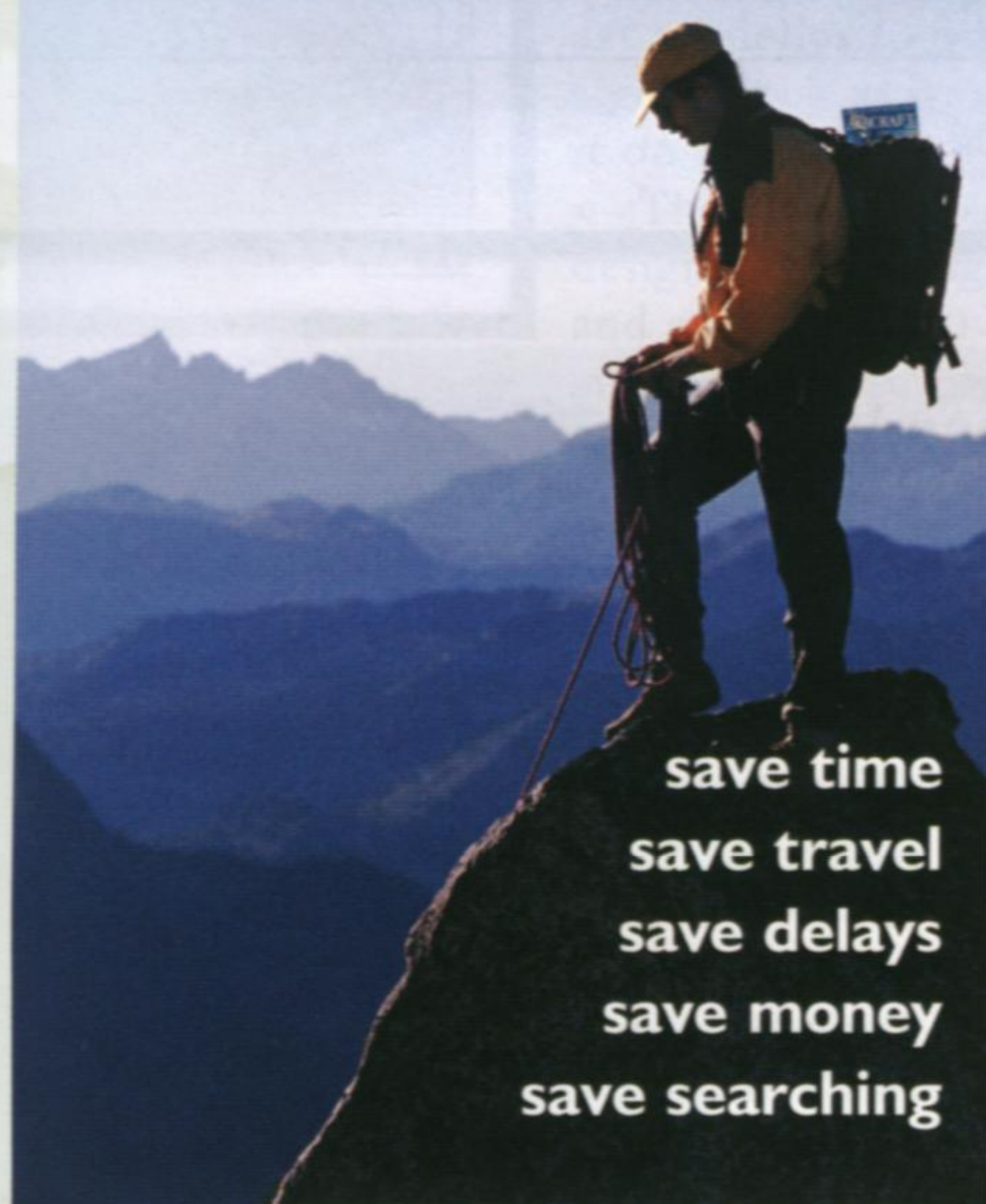
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In Print

Aviation Elite Units – Jagdgeschwader 11



by Greg Van Wyngarden
UK price £13.99
Osprey Publishing Ltd

This latest offering from Osprey's Aviation Elite Units series has been most timely, coinciding as it does with the recent release of the quarter scale Fokker D.VII from Roden.

The story of *Jagdgeschwader* Nr 11, the *Geschwader 'Berthold'*, is a tale of endurance against the odds with inadequate supplies, aircraft and support, that the veteran pilots overcame to enjoy, if such is the word, great success against their American and French opponents.

Pilots who became prominent with *Jagdgeschwader* Nr 11 included such worthies as Josef Veltjens, (35 victories), Georg von Hantelmann, (25), Franz Buchner, (40) and Ulrich Neckel, (30), during 1918.

The book weaves a fascinating overview of events from historical and the pilots' perspectives, coupled with contemporary photographs of aircrew and machines complemented, much to the modellers benefit. There are several full colour pages of various representative types such as the Albatros D.V, Pfalz D.III, Fokker Dr.I, Siemens-Schuckert D.III, and the Fokker D.VII. These include plan and side views of some remarkably colourful schemes!

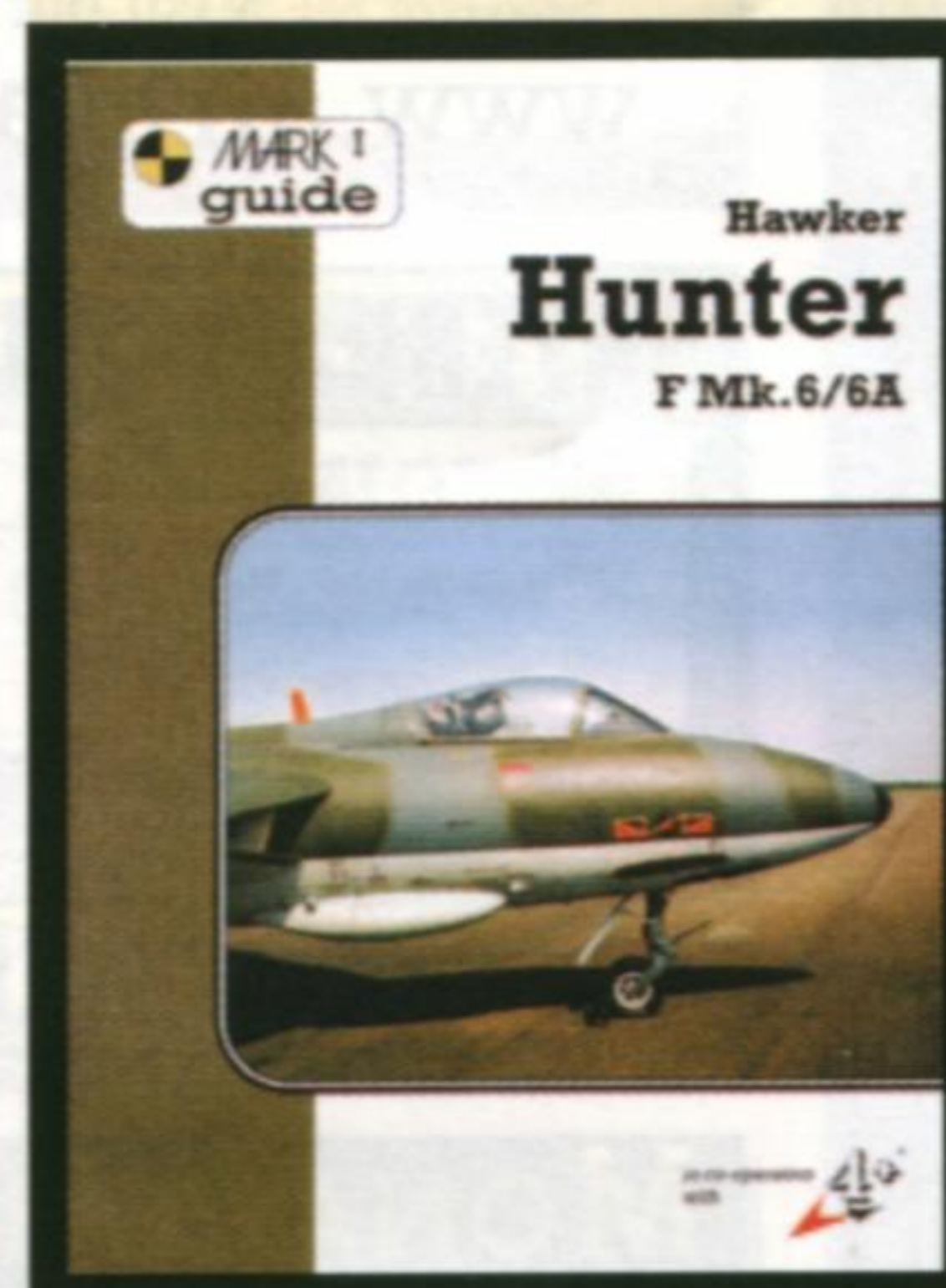
Unusual photographs of great interest feature subjects such as the early demonstration of the parachute and the Fokker E.V parasol.

One for the armchair aviation historian I think and the WWI modeller with all those wonderful colour illustrations.

Des Knock

Thanks to Osprey Publishing for the review sample

Hawker Hunter F Mk 6/6A



by Michal Ovcacik & Karel Susa
UK price £9.90
Mark 1 Publications Ltd

This book is superbly timed for modellers who have bought the new Revell Hunter kit and it covers most of the detail that the 'super detailer' will require.

An A4 publication of some 28 pages, plus covers, it is crammed with information. The first three pages acquaint the reader with the aircraft itself, including details of operators and a production list.

This is followed by a large number of photographs, in both b&w and colour, with no fewer than 106 close-ups, illustrating every known external detail, including fifteen cockpit shots. It seems that no detail is unrecorded. Such things as the different types of intake covers, the entry ladder, the external weapons, and detailed sketches of the ground handling towing arm, seat, flaps and even the rearward towing bridle and lug on the main undercarriage leg.

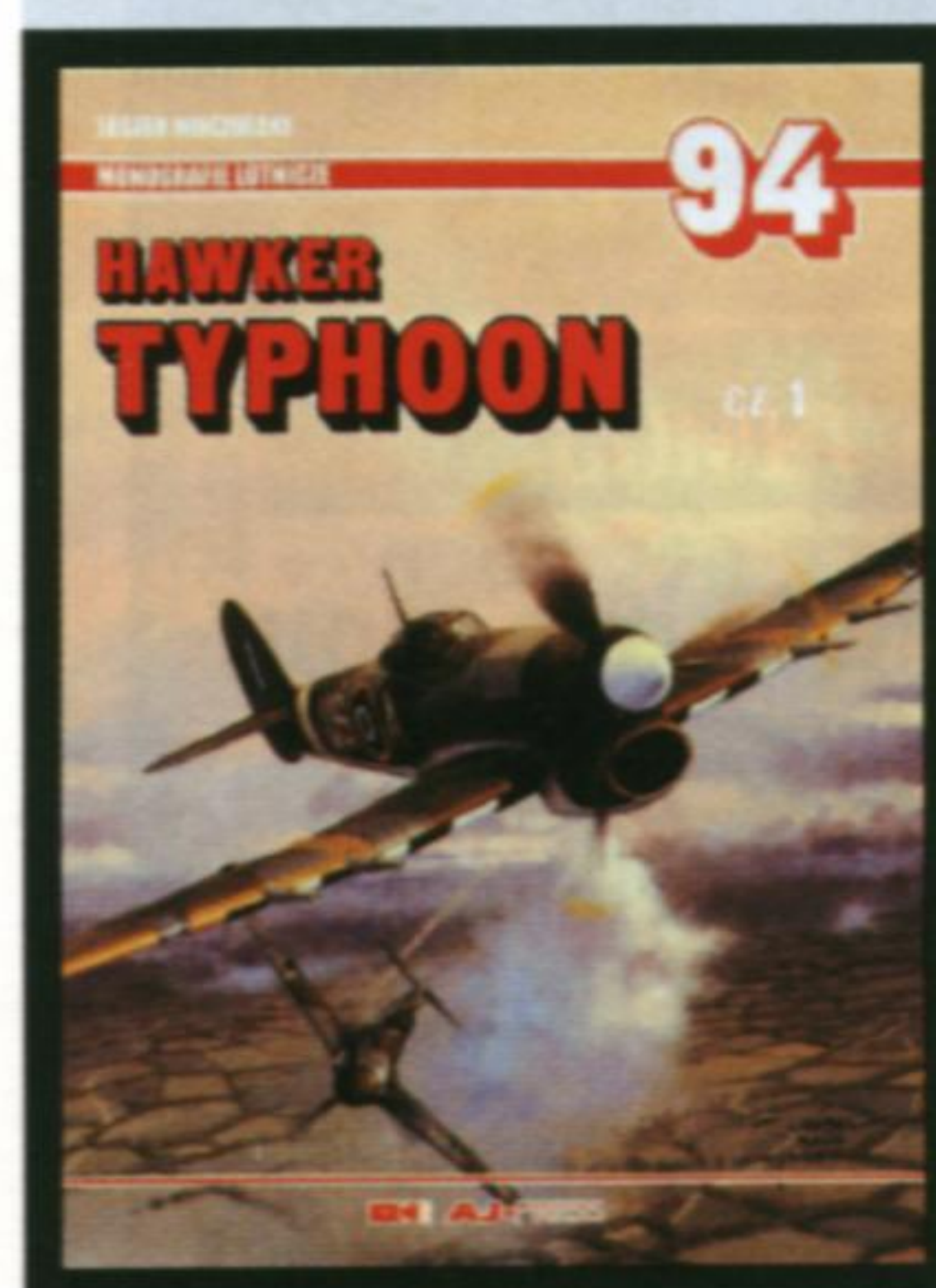
If this is not enough, the centre spread contains colour artwork for the following machines – XE628/X of No 1 Sqn; XF515/R of No 43 Sqn; XG159/P of No 56 Sqn; XG185/Z of 92 Sqn in 'Blue Diamonds' markings; plus Indian, Iraqi and Jordan AF examples. On the rear cover, there are Dutch, Belgian and Swiss aircraft, plus two Mk 6A's of 229 OCU.

This is the right book at the right time – and the best £10 you are likely to spend for a long time to come – and certainly cheaper than crawling around preserved examples trying to take your own photographs!

Ernie Lee

Thanks to Mark 1 Ltd for the review sample

Monografie Lotnicze 94 and 95 – Hawker Typhoon Vol 1 and Hawker Typhoon Vol 2



by Leszek Moczulski
UK price:
Vol 1 £12.99, Vol 2 £15.99
AJ Press

Although the text is written throughout in Polish, this is less of a problem than it might at first seem, as one of the main strengths of the AJ Press monografies is the wonderful quality and printed size of the photographs – many of them being full page, and they do have dual Polish/English captions – and this two-part on the Hawker Typhoon is no exception.

Although there is some necessary overlap, basically the books are split into coverage of the development of the type and early operations in Volume 1, followed by operations and airframe developments from about early 1943 until the end of World War Two in Volume 2.

Both volumes contain detail sketches, many of them from the manufacturer's factory handbooks, which provide some very useful information for super-detailing, plus several pages each of 1/48 scale plans, covering all the various improvements and changes, including all the armament options, to be found on the Typhoon throughout its development and operational service life.



Both books also contain several pages each of camouflage and markings profile illustrations including some with upper and under surface illustrations.

Inevitably, with such a well-covered aircraft type as the Typhoon, many of the photos, (some of which are wonderful wartime colour shots), will be familiar to many 'long in the tooth' aviation enthusiasts, but there are also a good few that I had never seen before – and printed in a large format – which made a very refreshing change.

It is easy for me to recommend books which I have not had to pay for, (being 'free' review samples), but these are two which I would have gladly paid the asking price – and coming from a Yorkshireman that has to be praise indeed!

Neil Robinson

Thanks to the Aviation Book Centre, (aviationbookcentre.com), Tel 01455 214900, for the review samples.

Osprey New Vanguard – V-1 Flying Bomb 1942-52 – Hitler's infamous 'Doodlebug'



by Steven Zaloga
UK price £8.99
Osprey Publishing Ltd

Whilst much hand wringing is done in regards to the bombing of German cities such as Dresden during WWII, much is overlooked regarding the fate meted out by the *Luftwaffe* to Geurnica and Warsaw to name but two, and of course the weapons created to exact vengeance upon civilian populations away from the front lines in the form of the Fi 103 V-1.

These Flying Bombs winged their way towards London and other European cities in the vain attempt to exact retribution using facilities and materials that could have been put to far better use with more conventional equipment.

This Osprey New Vanguard book provides a brilliant introduction to the infamous 'doodlebug' covering its development and application in both ramp-launched and airborne launched attacks.

One fascinating potential that came to nought was the manned V-1, Fi-103Re.4 *Reichenberg*, similar to the Japanese 'kamikaze' version, although in the German case with the very slim hope that the pilot would jump to safety. This concept was shelved, fortunately for the pilots involved!

Yet another more ominous development was the derivative created for the carriage of chemical or germ warfare

weapons which thankfully were not used in anger, although clearly if more time had been available who knows what could have transpired?

You may note that the dates in the title go beyond the end of the Second World War and this is because the idea was further explored by both the Soviets and Americans respectively in the 10Kh and JB2 'Thunderbug', both not ones to waste such an innovative 'cruise missile'.

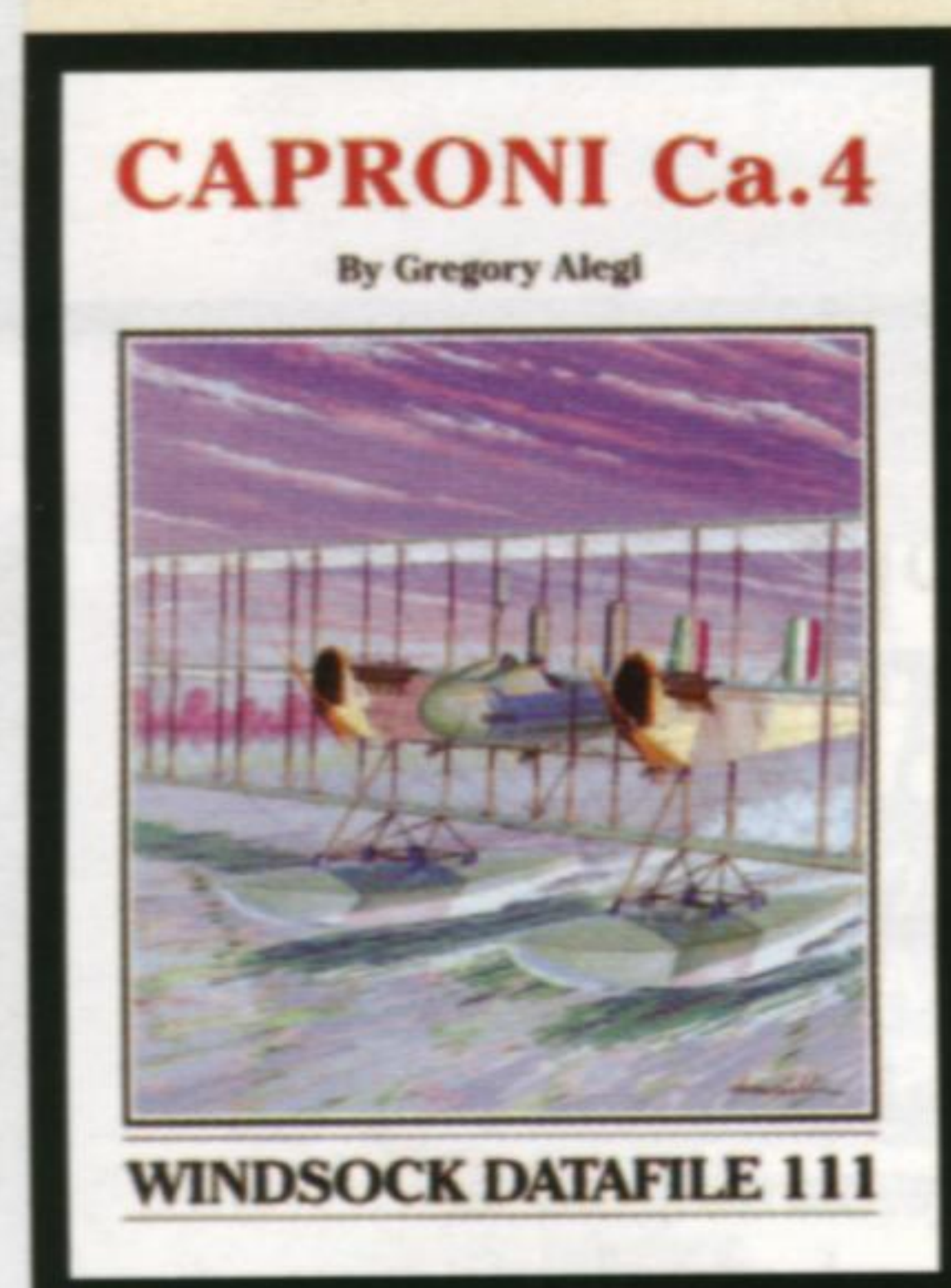
One US version was called the LTV-N2 otherwise known as the 'Loon', which probably says it all. However this is a fascinating insight into one of Hitler's much-vaunted Vengeance Weapons and its subsequent adoption by his enemies and as such represents an absolute cracker of a book.

The contents feature an historical overview, contemporary photographs, technical line drawings and the whole complemented by a superb collection of full colour illustrations and is thus very highly recommended.

Des Knock

Thanks to Osprey Publishing for the review sample

Datafile 111 – Caproni Ca.4



by Gregory Alegi
UK price £10.25
Albatros Productions

As a modeller, my first thoughts when appraising a Datafile are its modelling potential. This aircraft is a 'nightmare', and I have already worked out some of the possible 'modelling' problems if ever it was kitted. The design is such that whilst it would encourage a biplane enthusiast modeller to purchase the kit, have a good look at it, and then quietly put it on hold!

This aircraft was massive. A triplane design with a wingspan of some 97 feet and a height of 20 feet with the engines and fuselage suspended between them. It must have been quite a sight. One shot shows a 15 foot wooden ladder leaning against the aircraft - the only way to get in.

This is a typical Datafile with the 'little extras' such as detail sketches on both the inside covers. We get the usual brief development and operational history interspersed with loads of well-captioned photographs, many of which are as clear as you would get today.

The size and position of the fuselage would have made fuselage bomb racks a challenge, and this was overcome with the large container built into the lower wing. A modified version of this container could house five passengers, as one photograph shows.

Although basically a landplane, a variant with floats was constructed, with photographs and the cover painting illustrating this aircraft. As always 1/72 and 1/48 scale drawings are provided, (just of the landplane) - likewise with the three colour profiles on the rear cover.

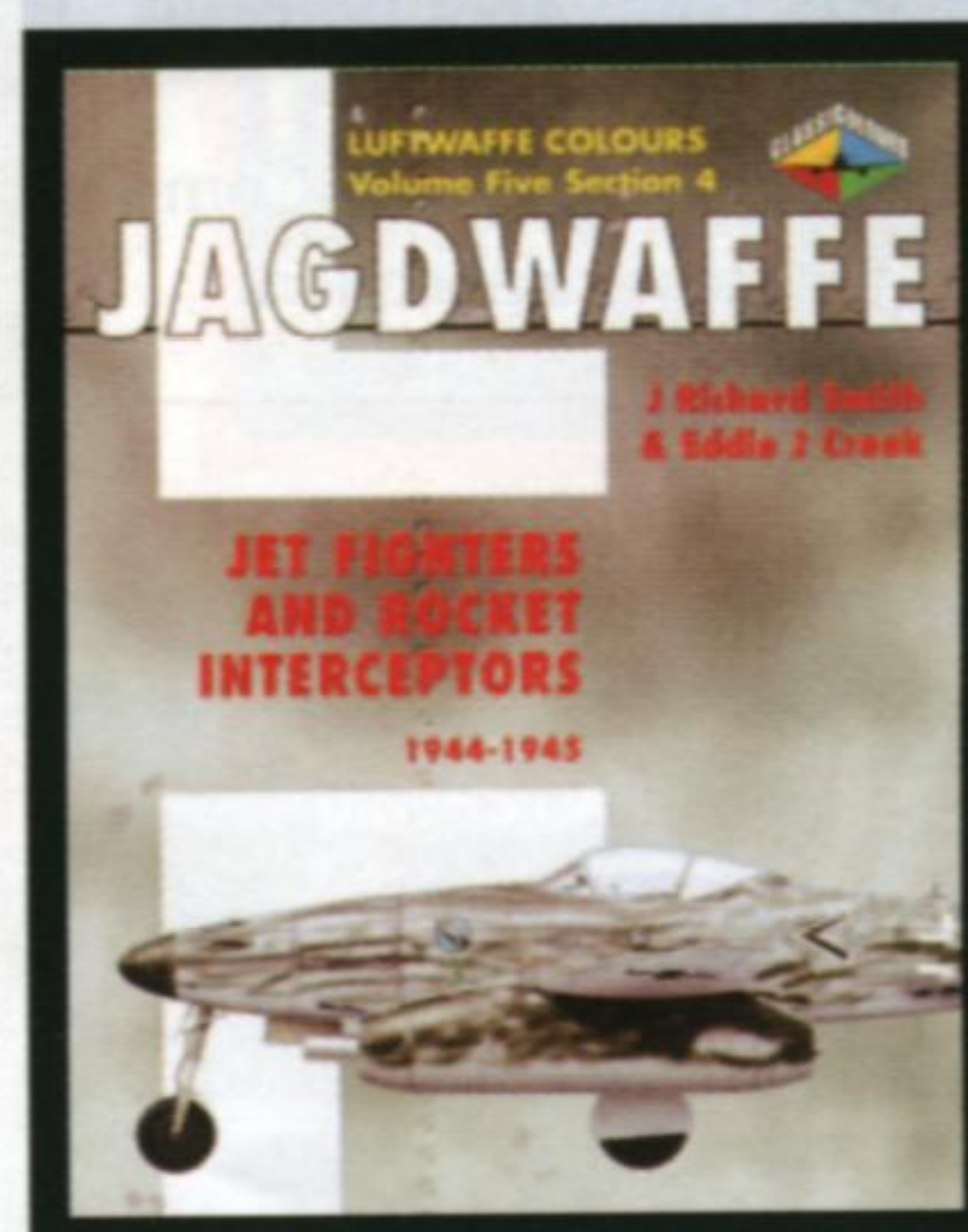
Again a collector's item and an automatic buy for the World War One aviation enthusiast.

If you want to know more about other Datafiles and the bi-monthly magazine Windsock, check out the web site – www.windsockdatafilespecials.com

Ernie Lee

Thanks to Albatros Productions for the review sample

Jagdwaaffe Volume 5 Section 4 – Jet Fighters & Rocket Interceptors 1944-1945



by J Richard Smith &
Eddie J Creek
UK price £16.99
Ian Allan Publications

This book sees the end of this monumental 20 Volume series and it is fitting that the types dealt with heralded a new age in the development of aviation. This is the story of the very first combat between the Luftwaaffe's jet fighters and Allied piston engine aircraft.

Although basically a combat history, the lead-in chapters give a fascinating insight into the early experimentation and development of rocket and jet propelled aircraft in Germany, starting in 1936 with rocket propelled cars.

We then move on to the development and combat histories of the three main types, the Me 262, the Me 163 and the He 162. Interesting though the text is, I suspect that it is the photographs and the artwork interpreted from them that will be of

especial interest to modellers.

As with their piston-engined cousins, the colour schemes are very individual. In fact it is difficult to find any two that are the same, especially regarding the Me 262 and the Me 163 – and few of the machines can be produced in miniature without the dextrous use of an airbrush, the exceptions being the well-known overall red Me 163, a similar aircraft in overall RLM 76 and an Me 262 with a single dark green on the upper surfaces.

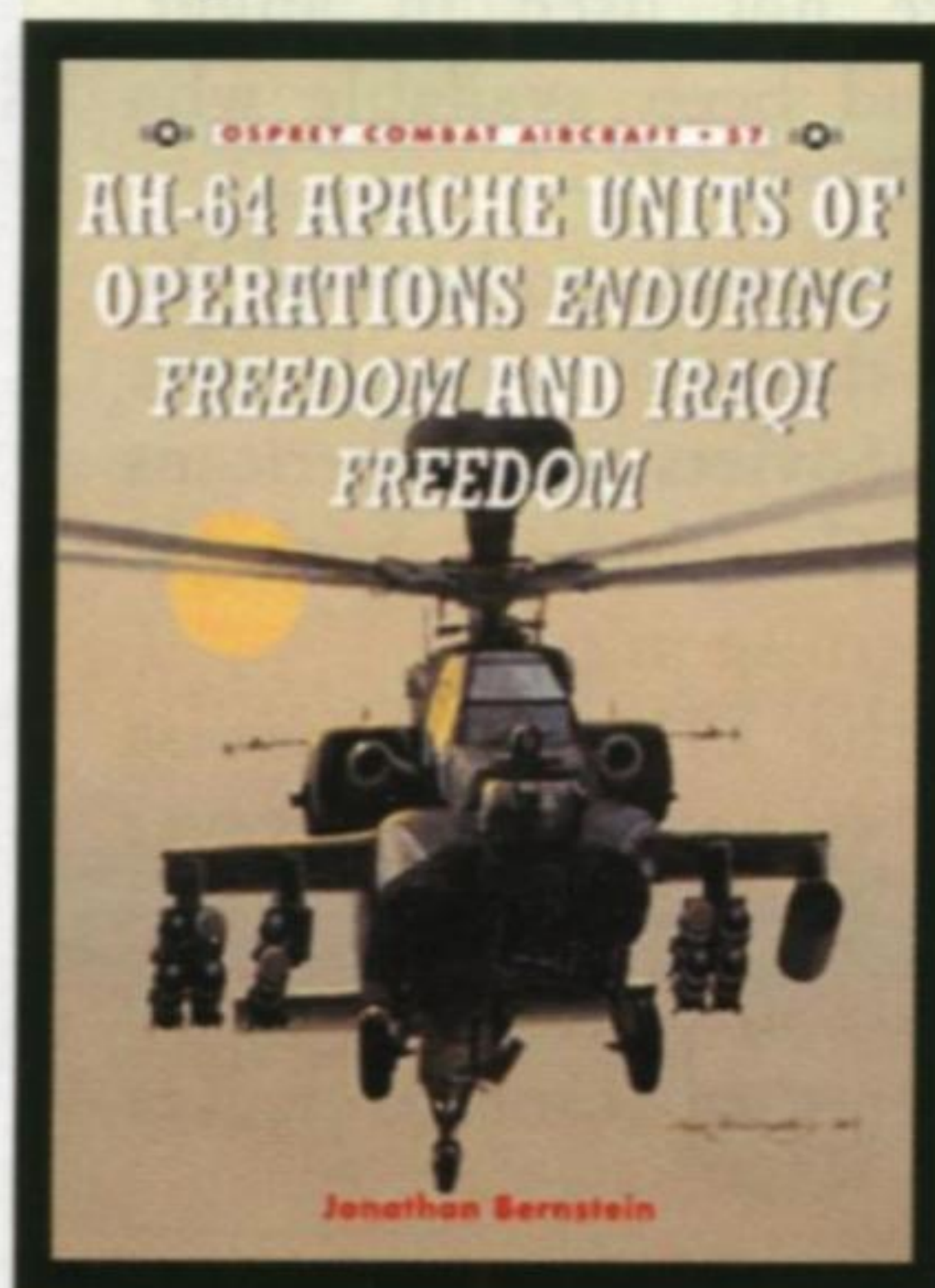
The other aircraft come in all combinations of mid and late-war RLM colours. One particularly unusual scheme for a fighter was an Me 262A-1a with RLM 81 upper surfaces over-spayed with RLM 76 in a wave pattern, similar to ones found on some bombers. Even less common was a night-fighter Me 262B-1a with a white lightning flash on the nose.

If you are an aviation enthusiast or modeller I am sure you will find this book very useful. I know that there is a companion series dedicated to *Luftwaaffe* bombers, (called 'Kampflieger'), and I hope that Classic Publications/Ian Allan Publishing might consider completing the picture of Luftwaaffe combat aircraft by producing a series on flying boats and seaplanes, or even transport aircraft – we can but hope.

Ernie Lee

Thanks to Ian Allan for the review sample.

Combat Aircraft 57 – AH-64 Apache Units of Operation Enduring Freedom and Iraqi Freedom



by Jonathan Bernstein
UK price £12.99
Osprey Publishing Ltd

The invigorated response of the USA to terrorism following '9/11' included the application of its full array of military hardware, and one element of this was the deployment of the AH-64 Apache to both Afghanistan and Iraq.

One wonders who think up the names for these operations – 'Operation Enduring Freedom' and 'Operation Iraqi Freedom'!

Steering well clear of the politics, this latest Osprey focuses upon the applied use of the Apache in support of ground forces in both Afghanistan and Iraq, an unenviable position for the troops involved.

This provides a fascinating text illustrating, often by personal testimony, contemporary colour photographs and illustrations, the fight against the Taliban and al-Qaeda forces, acting as US Army 'Hunter Killer' teams,

spearheading advances and bringing overwhelming fire power to bear.

Apaches were instrumental in the spearhead advance into Iraq with the 3rd Infantry and 101st Airborne Divisions where both insurgents and weather took their toll upon the Apaches.

For the modeller I think this is a very useful resource because it includes full colour photographs of the type in Theatre plus their crews, seven pages of colour side views of specific aircraft, 1/72 scale line drawings, and appendices listing units flying combat missions in OEF and OIF together with ANG.

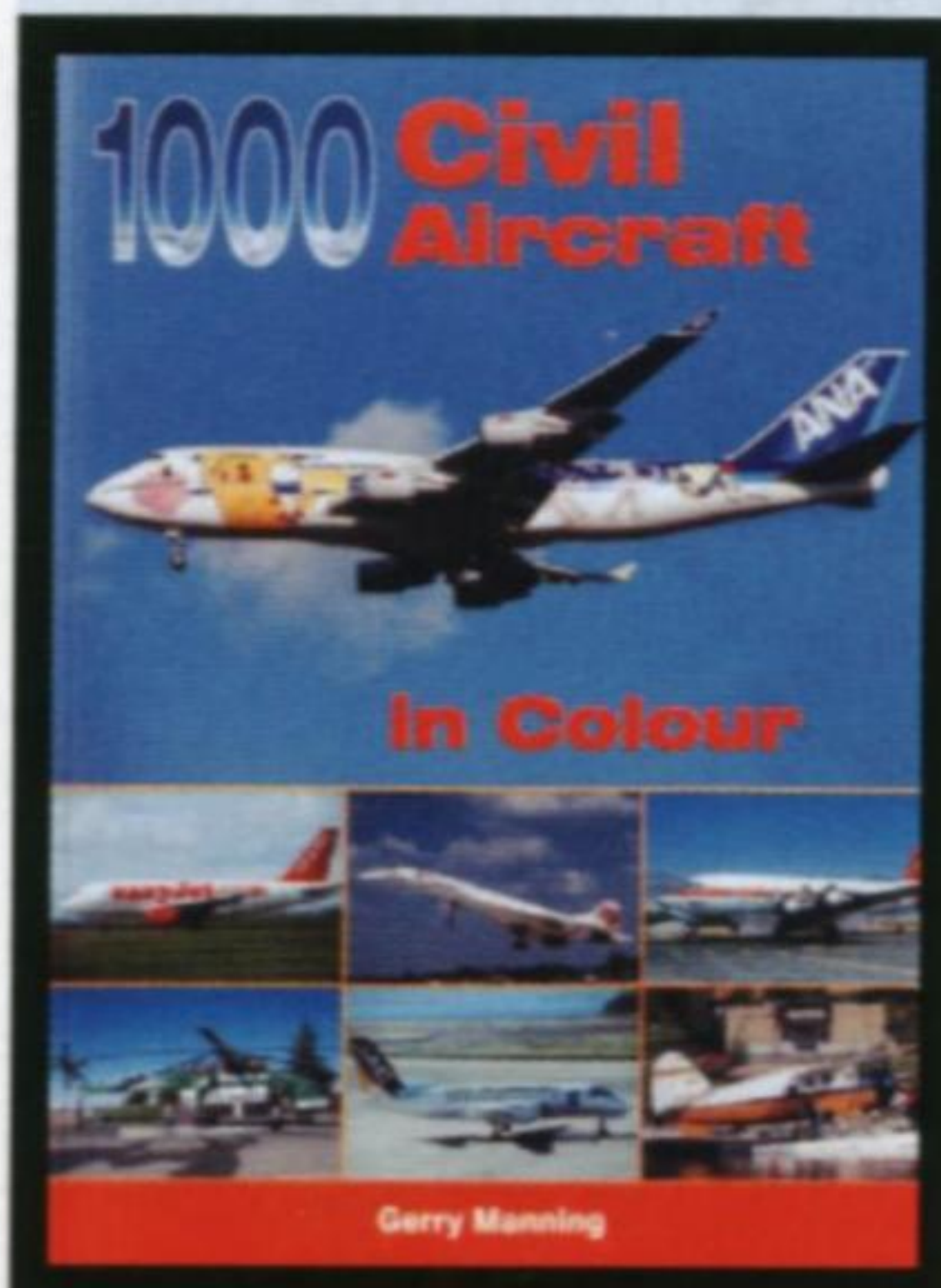
One interesting aspect was the adoption of the new Marine Grays camouflage, as illustrated both in side drawings and photographs of this in use in flight and on the ground.

This and much more is to be found in this latest addition to the Combat Aircraft line up and one to be recommended for closer inspection.

Des Knock

Thanks to Osprey Publishing for the review sample

1000 Civil Aircraft in Colour



by Gerry Manning
UK price £18.99
Midland Counties Publications

The title says it all; this A4 soft back contains more civilian colour schemes than I have ever seen in one book. I am sure that the colourful paintwork found on these machines is a big attraction for the modeller.

Even the most ardent 'airport watcher' could not log many of these aircraft. Not only are contemporary schemes recorded but examples from as far back as the 70's. OK you may have seen a Boeing 737 of Deutsche BA at Gatwick or a European Air Charter Boeing 747 at Manchester, and even an Airbus A320-212 of Monarch Airlines out of Luton. But how many enthusiasts have managed to photograph a Short SD.330-100 of American Eagle or a Short SC.7 Skyvan of the Arctic Circle Air Service out of Fairbanks. There are some

rare types among the photographs, perhaps the rarest a Douglas C-133A Cargomaster, flown by Cargomaster Corporation, based at Anchorage.

It must have been a monumental task to collect all these photographs and I am certain that civil aircraft enthusiasts will appreciate the effort. This is a book that I recommend like-minded people add to the their book shelf, I do not think they will be disappointed

Ernie Lee

Thanks to Midland Counties for the review sample

Red Star volume 20 – Soviet/Russian Unmanned Aerial Vehicles



by Yefim Gordon
UK price £18.99
Midland Publishing

The UAV is the 'buzz-word' these days and although they are getting more and more sophisticated, it is not a new concept. Radio controlled vehicles were used in the 1930s, the Queen Bee springs to mind, and I remember small self-propelled target drones on sale in Army Surplus stores after World War Two.

This is the first book I have come across that deals in depth with Russian machines. The story starts with the Lavochkin La-17 target drone developed in the 1950s and carried aloft under the wing of a Tu-4. Further development produced the La-17, a self-propelled machine.

We then move to Tupolev's cruise missiles, and, as we all know, the Russians think big! The Tu-113 was enormous, having a length of over 75 feet and, the follow-on missile – the Tu-121

over 81 feet. We then move on to aerial reconnaissance vehicles with Yakovlev coming into the picture and, finally Kamov.

One interesting vehicle is a remotely controlled helicopter to be used for crop spraying. The informative text is accompanied by a large number of monochrome illustrations and drawings. These illustrations include many of the launch vehicles employed with a colour section at the rear of the book.

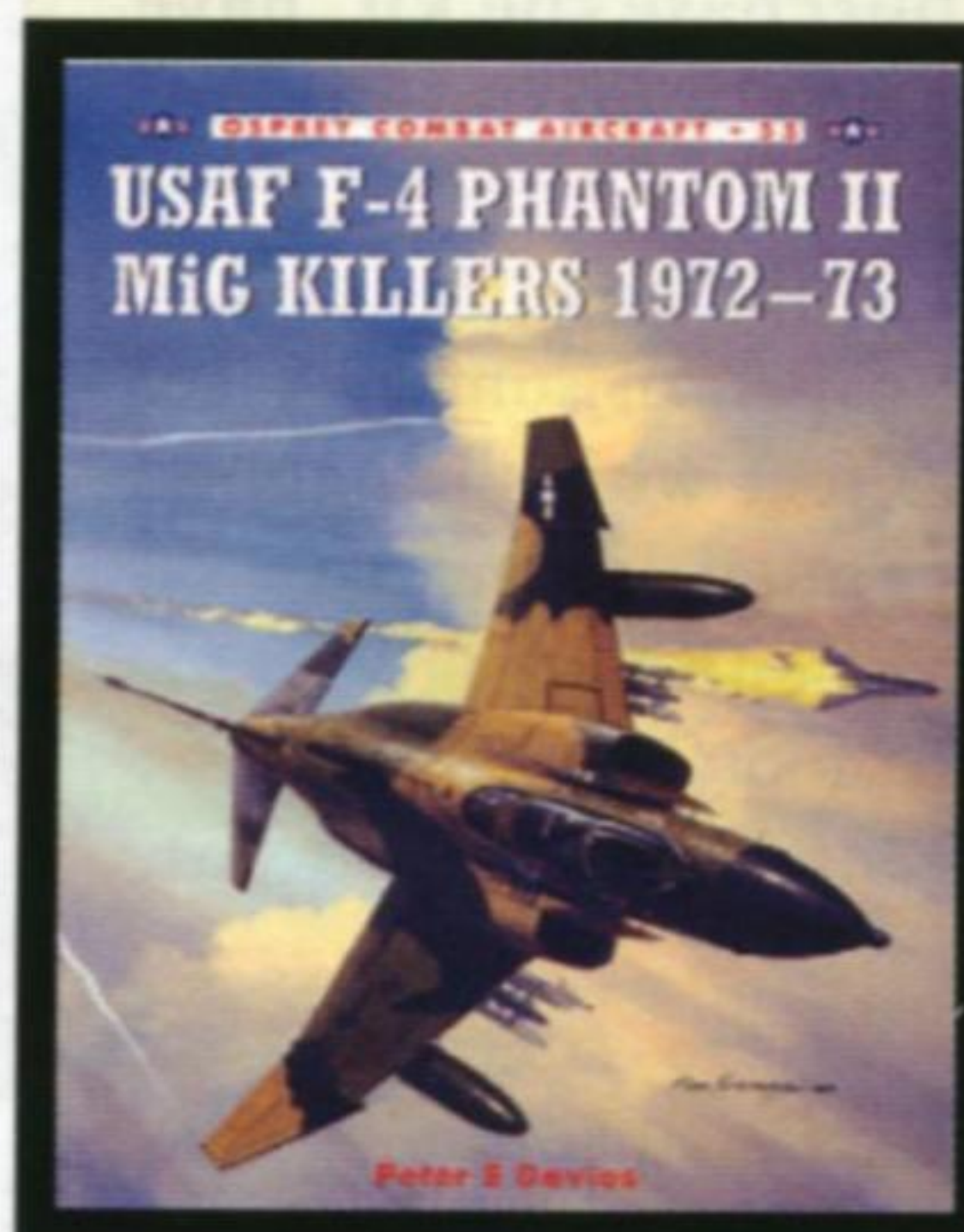
Obviously there are many more aircraft than those mentioned in this review and anyone with an interest in this subject could find this book invaluable.

The author is to be congratulated for giving us a rare glimpse into this less well-known area of Soviet aviation.

Ernie Lee

Thanks to Midland Counties for the review sample

Combat Aircraft 55 – USAF F-4 Phantom II MiG Killers 1972-73



by Peter Davies
UK price £12.99
Osprey Publishing Ltd

The years 1972 to 1973 were pivotal in the tactics adopted by the USAF to counter the threat posed by their communist opponents, particularly coming to terms with the limits of their advanced edge in technology, one that proved to have several disadvantages.

The 'Flying Brick' or the McDonnell Phantom F-4 was part of this and the aircrews of such had to overcome missile reliability problems, and a poor 'kill/loss' ratio as it served as the workhorse fighter-bomber of the Linebacker Campaign and attacks on cities such as Hanoi and Haiphong.

The lessons learnt against the MiG-19 and MiG-21 as the 'Yankee Air Pirates' fought to establish air superiority resulted in more grounded strategy and tactics based upon personal experience, and one of the fruits of this was the introduction of the Forward Weapons School.

This addition to the Osprey Combat Aircraft series covers this narrow period of time, featuring echoes of 'Rolling Thunder' and 'Linebacker', backing the B-52 'Buffs'.

This format utilises a very well executed formula combining contemporary b&w photographs, 1/96 scale detailed line drawings, nine full-colour side views of F-4D and F-4E aircraft, three colour pages of photos of the type in action, appendices listing F-4 MiG Killers in the period, and best of all, first-hand testimony and accounts of the aircrews involved.

As with others in this series, this all adds up to an excellent publication and one bound to be of interest to aviation armchair historians and 'kit bashers' both.

Des Knock

Thanks to Osprey Publishing for the review sample



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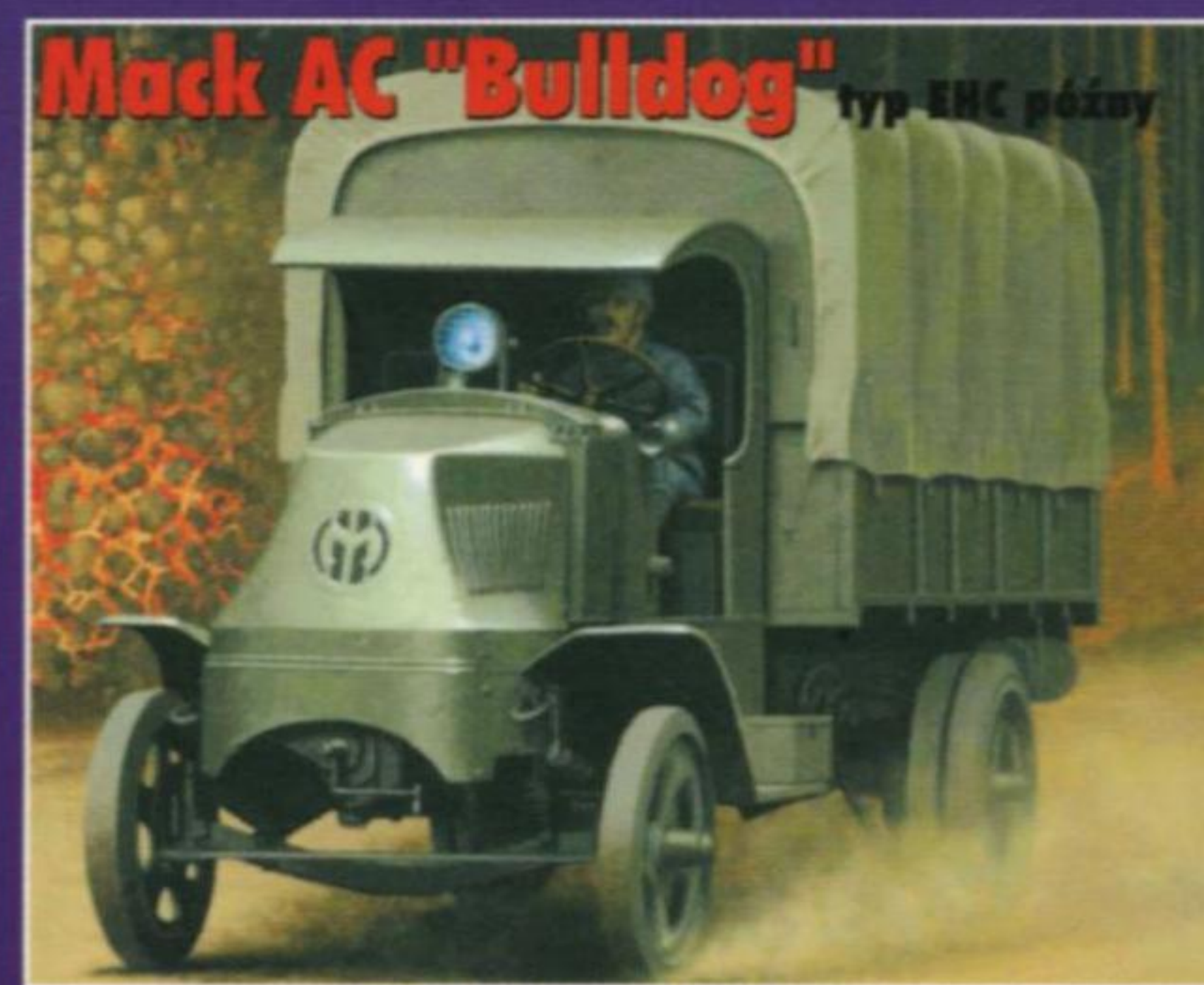
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